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Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION (2021)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet A

Friday **20 August 2021** **1 h**

Name: _____ ( ) Class: 6.( )

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 Answer ALL questions.

4 Shade your answers in the Optical Answer Sheet (OAS) provided.

5 You are **not** allowed to use a calculator for this paper.

This question paper consists of 8 printed pages (inclusive of cover page).

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet (OAS). (20 marks)

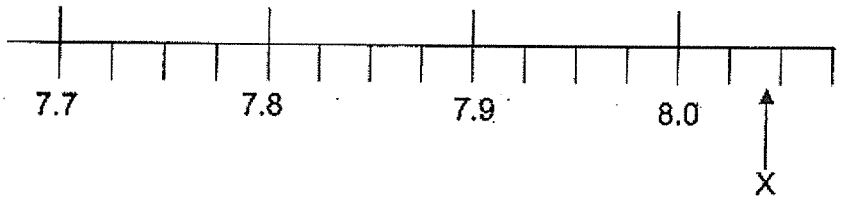
1. Round off 314 678 to the nearest thousand

   1) 314 000
   2) 314 680
   3) 314 700
   4) 315 000

2. Express $2\frac{9}{15}$ as a decimal.

   1) $2.3\dot{5}$
   2) 2.6
   3) 2.9
   4) 2.915

3. Part of a scale is shown below. What is the most likely value of the reading at X?



   1) 8.02
   2) 8.04
   3) 8.2
   4) 8.4

4. Which of the following fractions is the largest?

1) $\frac{2}{5}$
2) $\frac{3}{7}$
3) $\frac{4}{9}$
4) $\frac{5}{12}$

5. Which one of the following would be the most likely height of the ceiling of your classroom?

1) 3 m
2) 3 cm
3) 30 m
4) 30 cm

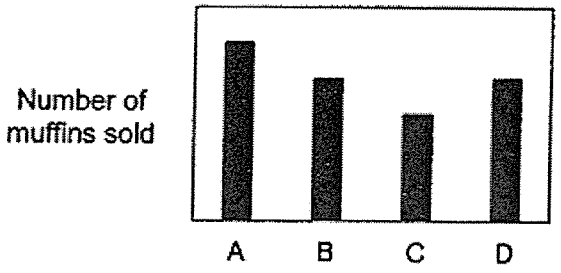
6. Which of the following is the same as 6.07 kg?

1) 6 kg 7 g
2) 6 kg 70 g
3) 60 kg 7 g
4) 60 kg 70 g

7. The average of 5 numbers is 30. 4 of the numbers has a total of 96. What is the fifth number?

1) 30
2) 44
3) 54
4) 66

8. The bar graph below shows the number of four types of muffins sold by a shop in a day.



Which table best represent the information in the table?

1)

Muffins	Number Sold
A	80
B	100
C	60
D	100

2)

Muffins	Number Sold
A	60
B	80
C	100
D	80

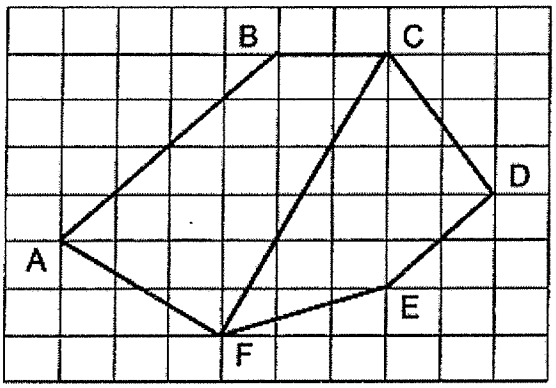
3)

Muffins	Number Sold
A	100
B	80
C	60
D	80

4)

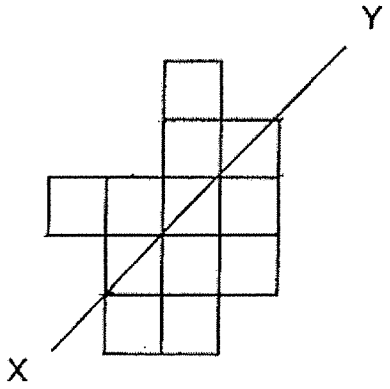
Muffins	Number Sold
A	100
B	60
C	80
D	60

9. Which pair of lines in the square grid is parallel?



1) AF // CD
2) AF // BC
3) AB // FE
4) AB // ED

10. The figure below shows 14 squares. What is the smallest number of squares that must be added so that the line XY becomes a line of symmetry?

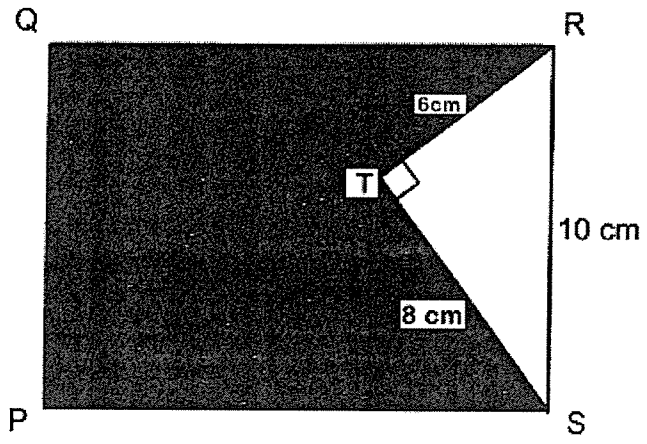


1) 1
2) 2
3) 3
4) 4

11. At a concert, the ratio of the number of boys to the number of girls is 3 : 4. The ratio of the number of children to the number of adults is 1 : 2. What is the ratio of the number of girls to the number of adults?

1) 2 : 1
2) 2 : 7
3) 3 : 7
4) 4 : 7

12. In the figure below, PQRS is a rectangle. RTS is a right-angled triangle of sides measuring 6 cm, 8 cm and 10 cm. The perimeter of the shaded part is 56 cm. Find the area of rectangle PQRS.



1) 110 cm^2
2) 160 cm^2
3) 210 cm^2
4) 320 cm^2

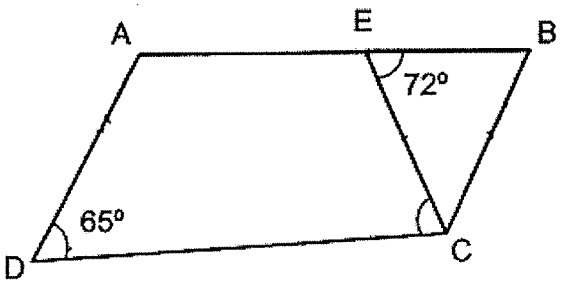
13. Mrs Samy travelled 10.8 km in a taxi from home to the shopping mall. Her taxi fare was based on the charges shown below.

First km	$3.70
Every additional 500 m or part thereof	$0.30

How much was her taxi fare?

1) $6.40
2) $6.70
3) $9.40
4) $9.70

14. In the figure below, ABCD is trapezium. AD is parallel to BC and BC = EC. ∠BEC = 72° and ∠ADC = 65°. Find ∠ ECD.



1) 36°
2) 43°
3) 72°
4) 79°

15. Suresh used $\frac{2}{5}$ of his money to buy 4 pens and 9 rulers. The cost of 2 pens was the same as that of 3 rulers. What was the greatest number of rulers that Suresh could buy with the money he had left?

1) 15
2) 21
3) 22
4) 30

End of Booklet A

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Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION (2021)

PRIMARY 6

MATHEMATICS

PAPER 1

Booklet B

Friday **20 August 2021**

Name: _____ ( ) Class: 6.( )

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 Answer ALL questions.

4 You are **not** allowed to use a calculator for this paper.

This question paper consists of 9 printed pages (inclusive of cover page).

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers to the units stated. (5 marks)

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16. Find the value of $8 \times 3 - (6 + 4) \div 2$.

Ans : _____

17. Find the value of $\frac{4}{7} \div 6$.
Express your answer as a fraction in its simplest form.

Ans : _____

18. A bottle contains 1.25 litres of juice. Arshad poured 400 ml of juice from it into a glass. How many litres of juice was left in the bottle?

Ans: _____ ℓ

Sub-Total : [ ]

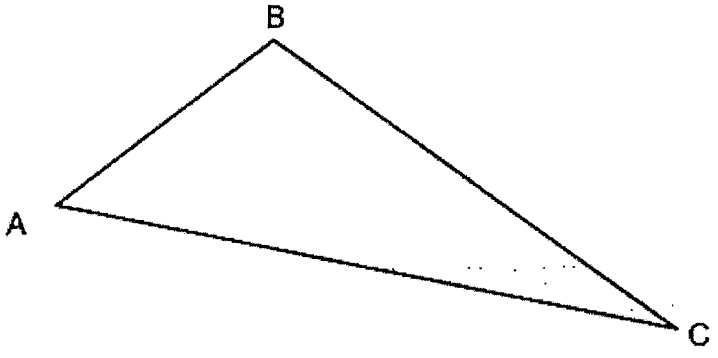
19. The timetable below shows the time a bus leaves the bus interchange for the airport.

Bus leaves interchange	Bus arrives at airport
8.20 a.m.	9.05 a.m.
8.40 a.m.	9.25 a.m.
9.15 a.m.	10.00 a.m.
9.45 a.m.	10.30 a.m.

Gracie wants to catch the bus that leaves at 8.20 a.m. but she is 45 minutes late. What is the earliest time Gracie can arrive at the airport by bus?

Ans: _____ a.m.

20. Measure the length BC in the triangle below.



Ans: _____ cm

Sub-Total :

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

21. Write down all the common factors of 18 and 48

Ans : _____

22. Find the value of each of the expressions when $k = 7$.

(a) $2k - \frac{k}{8}$

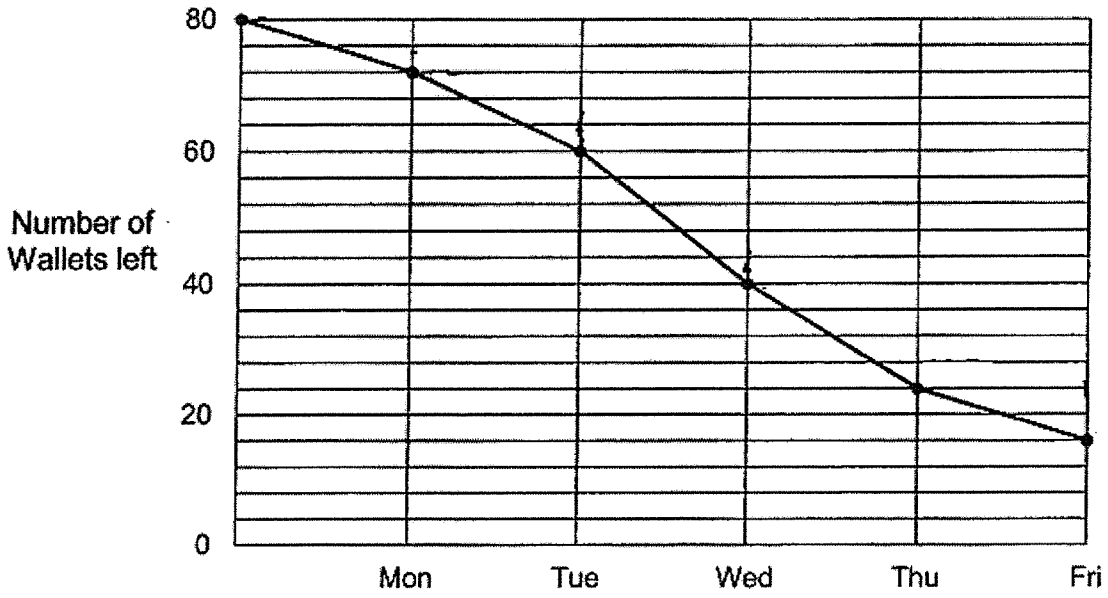
(b) $k - 13 + 2k$

Ans: (a) _____

(b) _____

Sub-Total : [ ]

23. Mr Siah had 80 wallets for sale. The graph below shows the number of wallets he had left at the end of each day from Monday to Friday.



(a) On which day did Mr Siah sell the greatest number of wallets?

(b) Find the difference between the number of wallets sold on Monday and Friday.

Ans: (a) _____

(b) _____

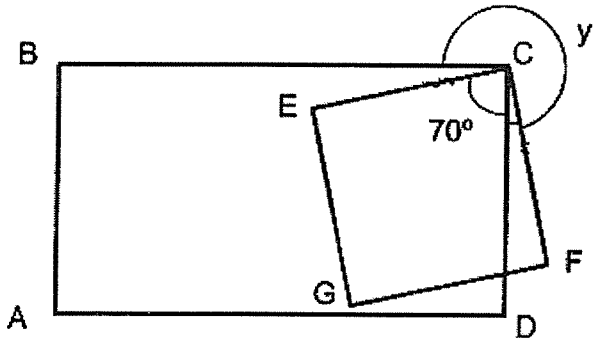
Sub-Total : [ ]

24. The table below shows the amount of money Tom saved from January to May. What was the percentage increase in his saving in May as compared to February?

Month	Jan	Feb	Mar	April	May
Amount of Savings ($)	54	48	50	36	60

Ans: _____%

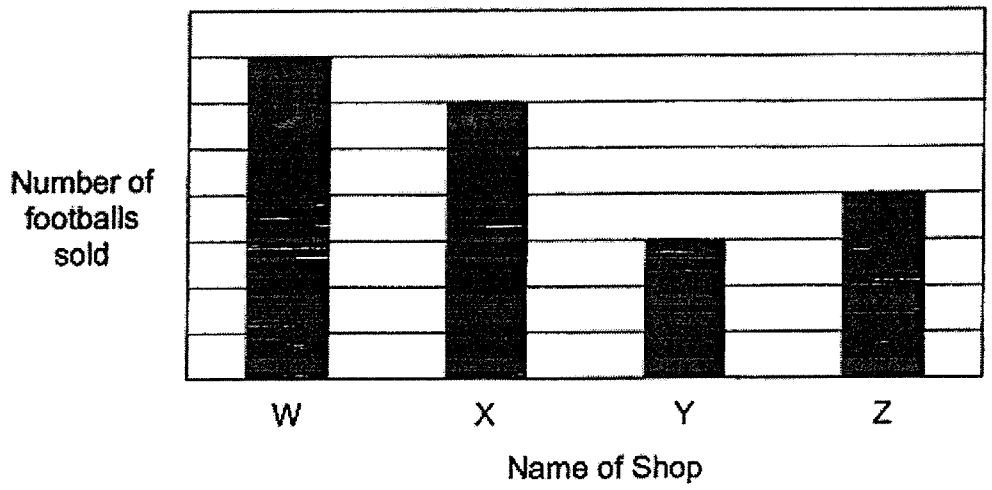
25. In the figure, ABCD is a rectangle, ECFG is a square. ∠ECD = 70°. Find ∠y.



Ans: _____°

Sub-Total :

26. The graph below shows the number of footballs sold by 4 shops in a week. The number of footballs sold is not shown on the scale.



The average number of footballs sold by the 4 shops was 40. How many footballs did Shop Y sell?

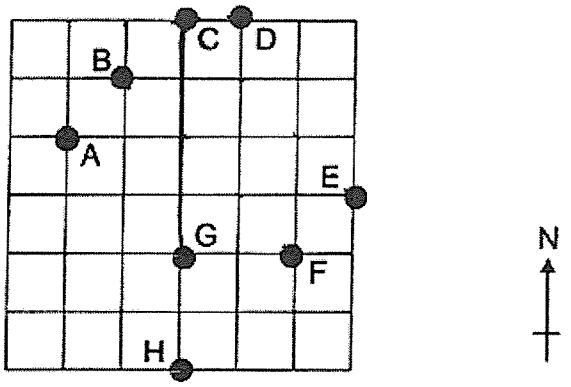
Ans : _____

27. James bought $\frac{4}{5}$ kg of flour. He used $\frac{1}{2}$ kg of it to bake some cakes and $\frac{1}{4}$ of it to bake some cookies. How much flour did he have left? Give your answer as a fraction in kilograms.

Ans: _____kg

Sub-Total : [ ]

28. The square grid shows the positions of points A, B, C, D, E, F, G and H.



(a) Seo Jun walked directly from point F to point B in a straight line. In which direction did Seo Jun walk?

(b) Min Yang stood at one of the points facing G. After she turned 45° anti-clockwise, she faced E. At which point was Min Yang?

Ans: (a) _____

Ans: (b) Point : _____

29. May and Nancy have equal number of pieces of ribbon. They each have a mix of long and short ribbons. The length of each piece of short ribbon is 40 cm and each piece of long ribbon is 70 cm. May has 7 pieces of short ribbon and Nancy has 18 pieces of long ribbon. The total length of May's ribbons was 2.4 m longer than the total length of Nancy's ribbons. How many pieces of ribbon does May have?

Ans: _____

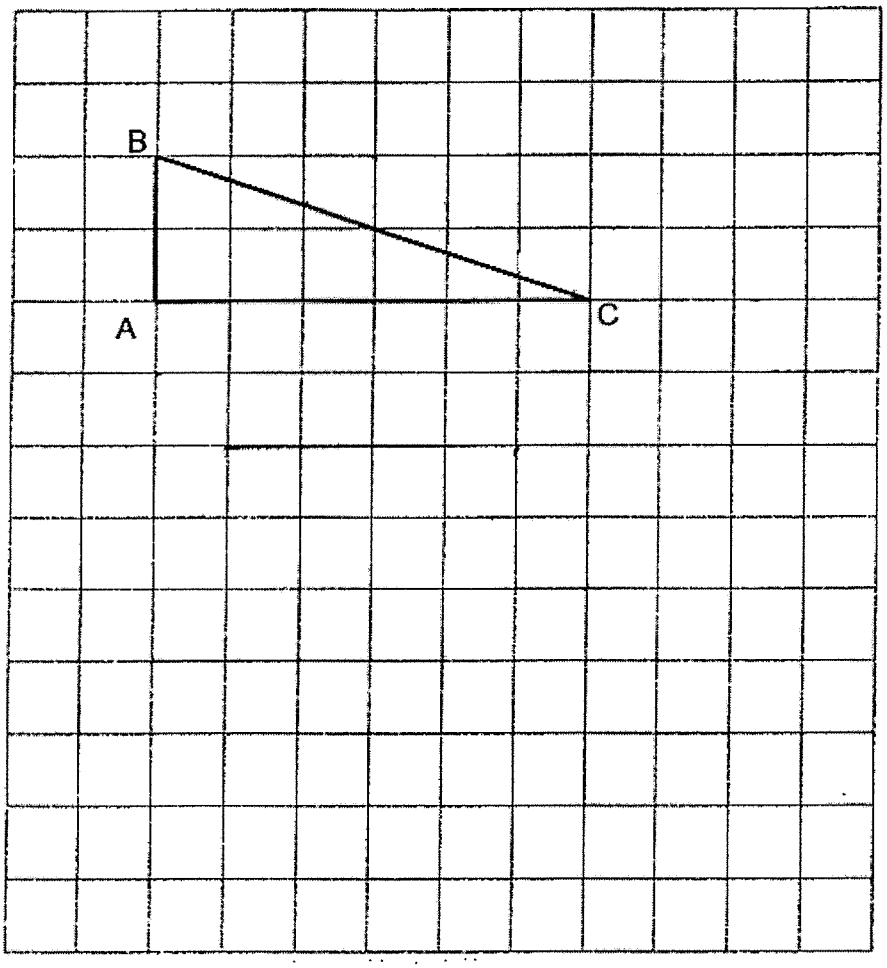
Sub-Total : ☐

30. In the square grid, a triangle ABC has been drawn.

(a) AC also forms one side of an isosceles triangle ACD in which ABC and ACD have the same area. Complete the drawing of triangle ACD in the square grid.

(b) In the square grid, draw a parallelogram with the same perimeter as triangle ABC.

Label the parallelogram, P.



End of Booklet B

Sub-Total :

Anglo-Chinese School (Junior)

PRELIMINARY EXAMINATION (2021)

PRIMARY 6

MATHEMATICS

PAPER 2

Friday **20 August 2021** **1 h 30 min**

Name: _____ ( ) Class: 6.( ) Parent's Signature:_____

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 Answer ALL questions.

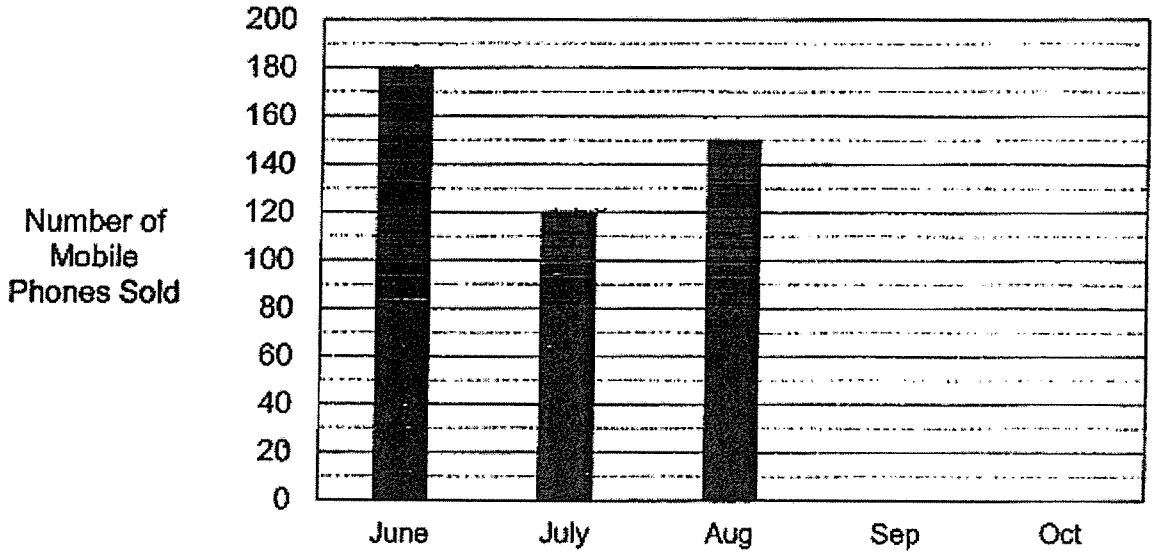
4 You can use a calculator for this paper.

Paper	Booklet	Possible Marks	Marks Obtained
1	A	20	
	B	25	
2		55	
Total		100	

This question paper consists of 15 printed pages (inclusive of cover page).

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

1. The graph shows the number of mobile phones sold in a shop from June to October. The bars for the months of September and October have not been drawn.

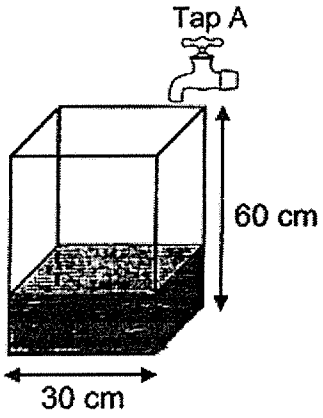


The average number of mobile phones sold from June to October was 160. Find the largest possible number of mobile phones sold in October given that the number of mobile phones sold each month is a 3-digit number.

Ans : _____

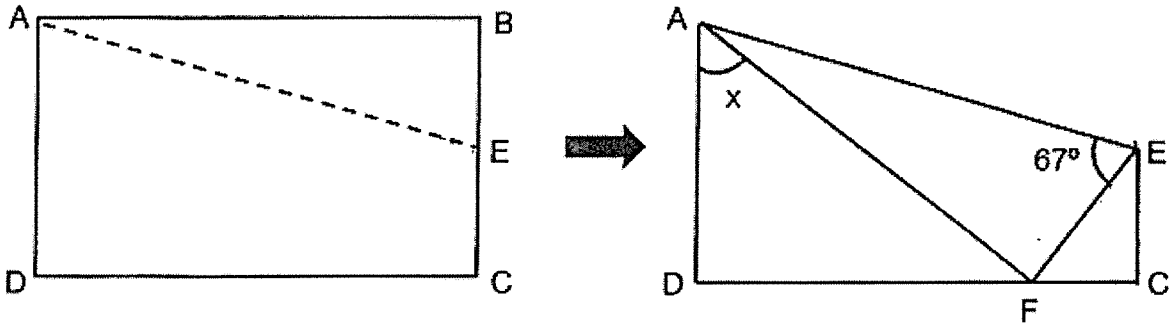
Sub-Total : ☐

2. A cubical tank with a square base was $\frac{1}{4}$ filled with water. Tap A can fill the tank with water at a rate of 3 litres per minute. How long does it take for the tank to be filled to the brim? Leave your answer in minutes.



Ans: _____ min

3. A rectangular piece of paper ABCD is folded along AE as shown below. $\angle AEF = 67^\circ$. Find $\angle x$.



Ans: _____ °

Sub-Total :

4. Owen had some fifty-cent and one-dollar coins. $\frac{2}{7}$ of his coins were fifty-cents coins. His mother gave him 10 one-dollar coins and five-dollars' worth of fifty-cent coins. In the end, he had twice as many one-dollar coins as fifty-cent coins. How many coins did Owen have at first?

Ans : _____

5. At a sale, a shop was offering a 20% discount for a pair of shoes. Customers can purchase a second pair of shoes at 50% discount. Scott paid $156 for 2 identical pairs of shoes. How much did each pair of shoes cost before the discount?

Ans : $_____

Sub-Total : [ ]

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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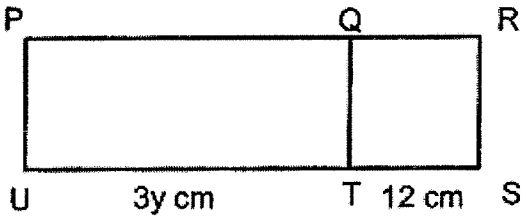
6. The figure is made up of rectangle PQTU and square QRST. UT = 3y cm, TS = 12 cm.



The perimeter of the figure PRSU is 84 cm. Find the value of y.

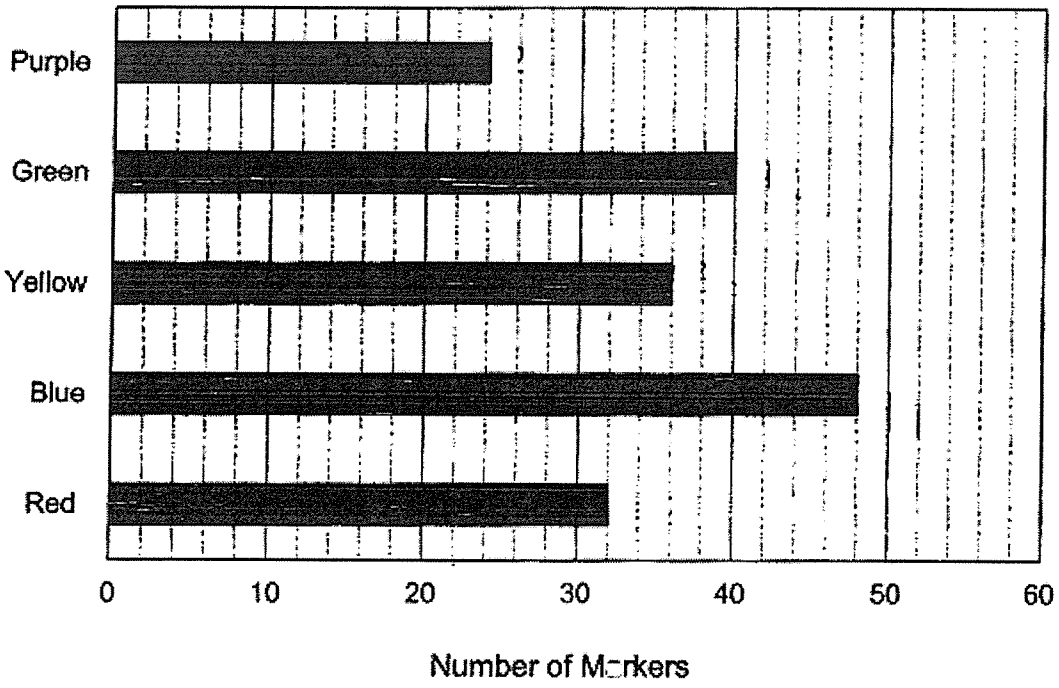
Ans: _____ [3]

7. Jonathan has some lollipops and he wants to put them into boxes. When he puts 4 lollipops into each box, he has 32 lollipops left over. When he puts 7 lollipops into each box, the last box had only 3 lollipops. How many lollipops does Jonathan have?

Ans : _____ [3]

Sub-Total : ☐

8. The graph below shows the number of different coloured whiteboard markers Mr Chen bought for his class.



(a) How many whiteboard markers did Mr Chen buy?

(b) Mr Chen gave away all his markers to 35 students in the class. Each student received either five or six whiteboard markers from Mr Chen. How many students received five whiteboard markers?

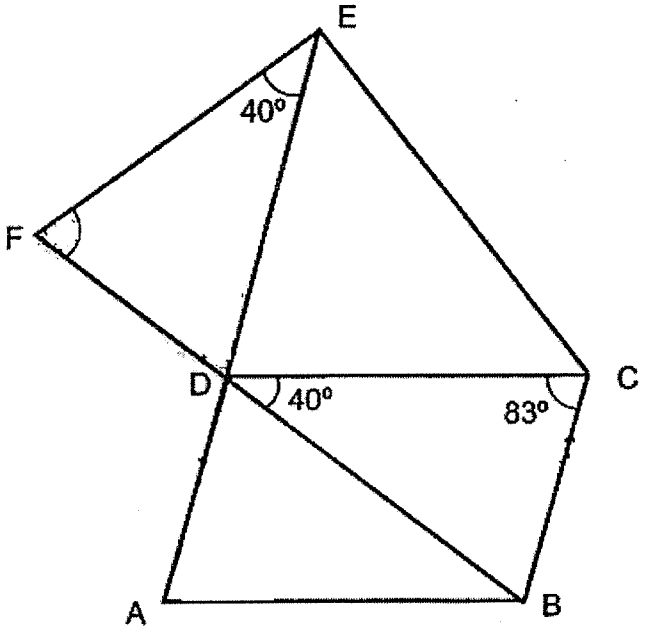
Ans : (a) _____ [1]

(b) _____ [2]

Sub-Total :

9. In the figure below, ABCD is a parallelogram and DEF is a triangle. ADE and FDB are straight lines. $\angle FED = 40^\circ$, $\angle CDB = 40^\circ$ and $\angle DCB = 83^\circ$.

(a) Find $\angle DFE$.



Ans: (a)_____ [3]

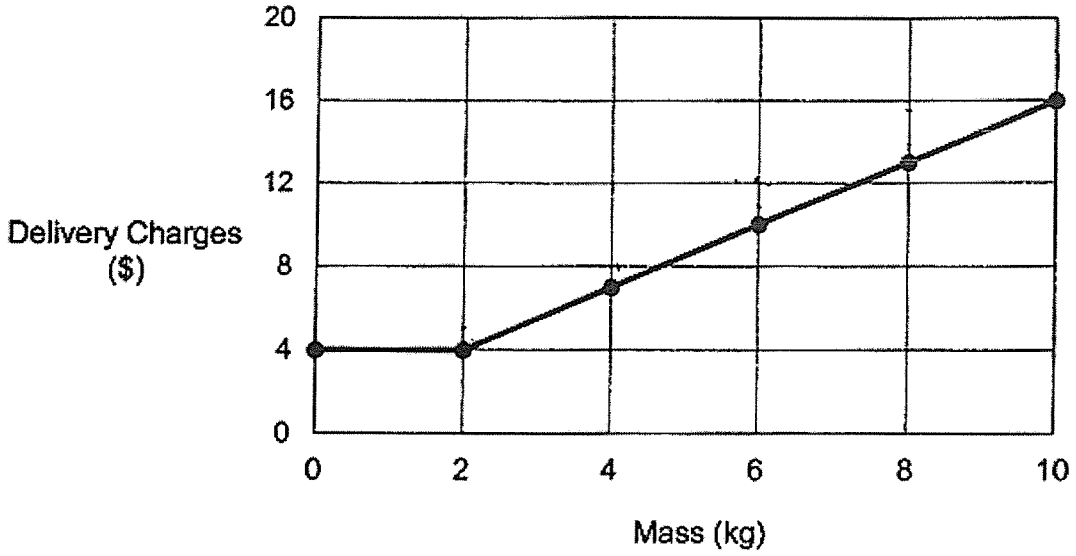
(b) Each of the statements below is either true, false or not possible to tell from the information given.
For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
FD = DA			
DECB is a trapezium.			

[2]

Sub-Total :

10. The graph below shows the charges of a delivery company for the first 10 kilograms of parcels.



(a) How much does the company charge for every additional kilogram of a parcel after the first 2 kilograms?

(b) Mark wants to send a parcel with a mass of 20 kilograms. How much must he pay for the delivery charges?

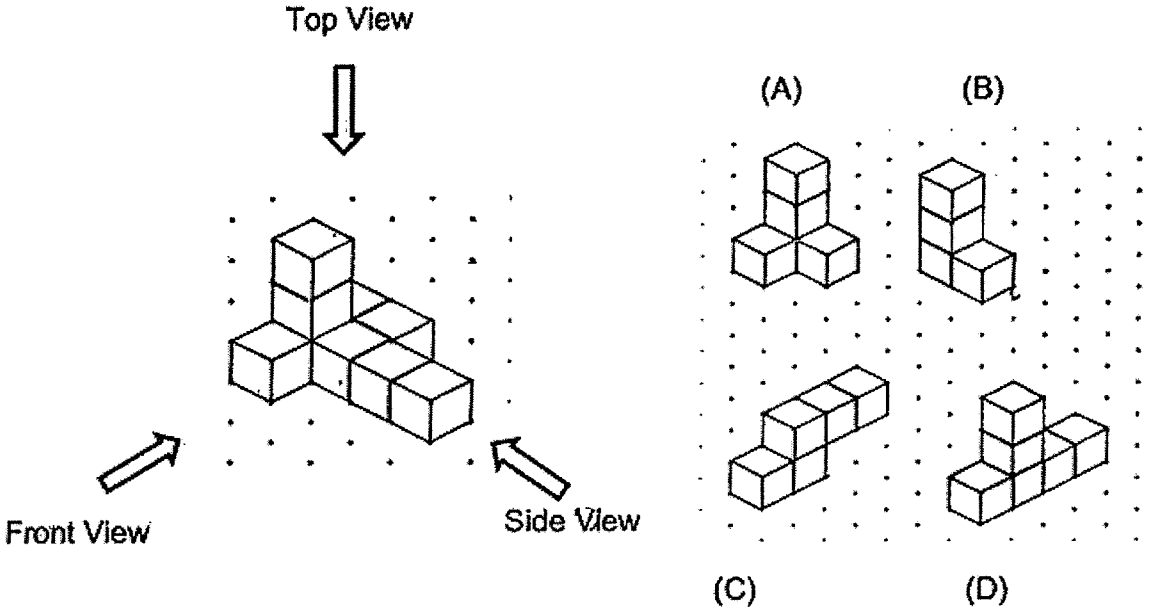
Ans : (a) _____ [2]

(b) _____ [2]

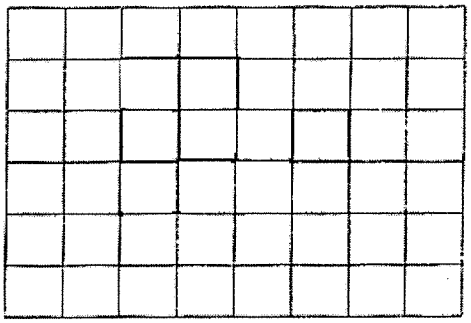
Sub-Total : ☐

11. Chandra formed the solid shown in the figure using two puzzle pieces.

(a) Which of the following are the two puzzle pieces?



(b) Draw the top view of the solid on the grid below. [1]



(c) Chandra pasted one star sticker on each square face of the solid. How many star stickers did he use?

Ans: (a) _____ and _____ [1]

Ans: (c) _____ [1]

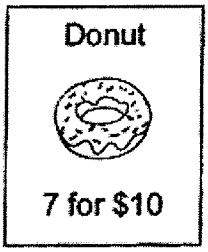
Sub-Total : [ ]

12. Machine A and Machine B were used to print the same number of cards each. Machine A took 60 minutes to print the cards. Machine B took 90 minutes to print the same number of cards. The faster machine printed 8 more cards per minute than the slower one. What was the total number of cards printed by the two machines?

Ans: _____ [3]

Sub-Total : [ ]

13. At a bakery, muffins and donuts were sold at the prices shown below.



Amy had some money. She spent $\frac{1}{2}$ of her money to buy some donuts and the remaining of her money on some muffins. She bought 54 more donuts than muffins. How much money did Amy have at first?

Ans: _____ [4]

Sub-Total :

14. Hansel and Sherman had some blue and green stickers. $\frac{3}{5}$ of Hansel's stickers were blue while $\frac{2}{3}$ of Sherman's stickers were blue. Hansel gave $\frac{3}{4}$ of his blue stickers to Sherman. In the end, $\frac{7}{10}$ of Sherman's stickers were blue and Hansel had 165 stickers left.

(a) How many blue stickers did Hansel give Sherman?

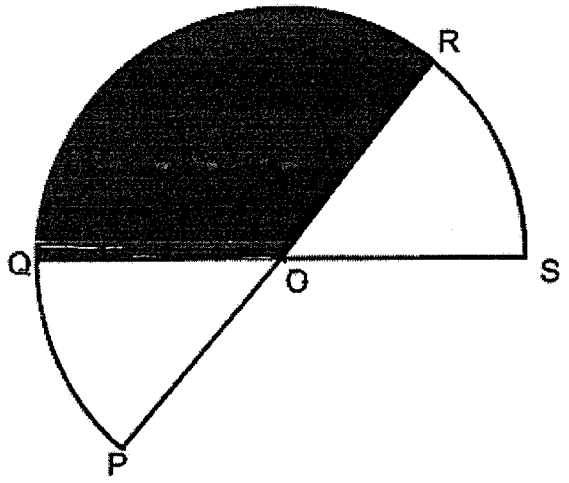
(b) How many stickers did Sherman have in the end?

Ans : (a) _____ [2]

(b) _____ [2]

Sub-Total : [ ]

15. OPQRS is part of a circle of diameter 40 cm. OPQR and OQRS are semi-circles. The area of the shaded part OQR is 420 cm^2 and the perimeter of the shaded part OQR is 78 cm.



(a) Find the area of the figure OPQRS.

(c) Find the perimeter of the figure OPQRS.

Take $\pi = 3.14$.

Ans: (a) _____ [2]

(b) _____ [2]

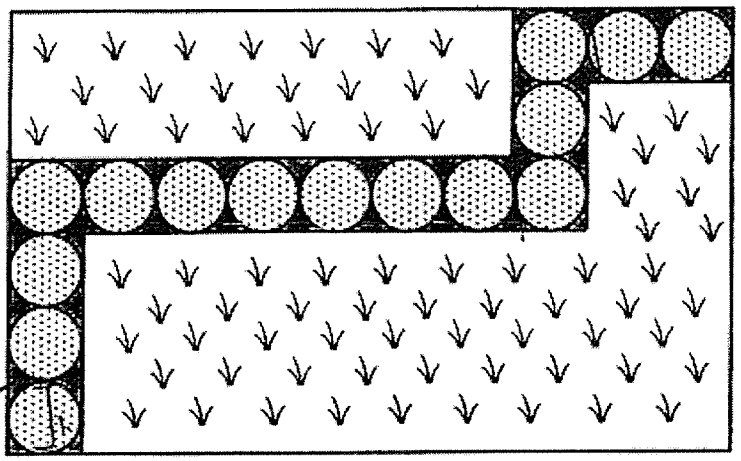
Sub-Total :

16. The ratio of the number of marbles Ryan had to the number of marbles Audrey had at first was 2 : 7. After Ryan bought another 20 marbles and Audrey gave away 80 marbles, the ratio of the number of marbles Ryan had to the number of marbles Audrey had became 1 : 3. How many marbles did Audrey have at first?

Ans : _____ [4]

Sub-Total : [ ]

17. The figure below shows a rectangular field with a perimeter of 48 m. A footpath cuts through the field as shown below. The footpath is tiled with 15 identical circular concrete tiles. Each tile is in contact with the ones next to it.



(a) What is the diameter of each concrete circular tile?

(b) Find the area of the **field** not covered by the footpath.

Ans: (a) _____ [2]

(b) _____ [3]

End of Paper 2

Sub-Total :

SCHOOL : ANGLO CHINESE SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	2	2	3	1	2	3	3	4	3

Q 11	Q12	Q13	Q14	Q15
2	2	4	4	3

PAPER 1 BOOKLET B

Q16) 19

Q17) 2/21

Q18) 0.85 l

Q19) 10.00 am

Q20) 6.9cm

Q21) 1,2,3,6

Q22) a) $13\frac{1}{8}$
b) 8

Q23) a) Wed
b) 0

Q24) 25%

Q25) 250°

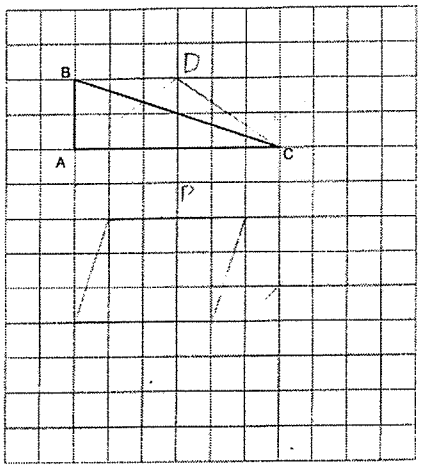
Q26) 24

Q27) 1/10kg

Q28) a) Northwest
b) C

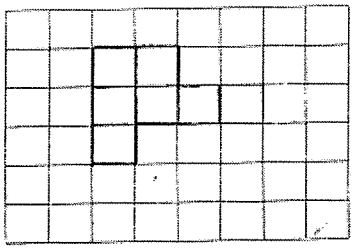
Q29) **33**

Q30)



PAPER 2

Q1)	160 x 5 = 800 800 – 180 – 120 – 150 = 350 350 – 100 = 250
Q2)	30 x 30 x 60 = 54000 54000 ÷ 4 = 13500 54000 – 13500 = 40500 40500 ÷ 3000 = 13.5min
Q3)	44°
Q4)	70
Q5)	$120
Q6)	84 – 12 – 12 – 12 – 12 = 36 36 ÷ 6 = 6cm
Q7)	32 + 4 = 36 36 ÷ 3 = 12 (12 x 4) + 32 = 80
Q8)	a) 24 + 40 + 36 + 48 = 180 b) 30
Q9)	a) 83° b) Not possible to tell True
Q10)	a) 16-4 = 12 12 ÷ 4 = 3 12 ÷ 8 = 1.5 b) 1.5 x 10 = 15 15 + 10 = 31
Q11)	a) B and C

b)  36

Q12) 10 x 8 = 80
80 x 36 = 2880

Q13) 21 – 15 = 6
54 ÷ 6 = 9
(9 x 21) – (9 x 15) = 54
9 x 21 = 189
189 ÷ 21 = 9
9 x 30 = 270
270 x 2 = 540

Q14) a) 135
b) 1350

Q15) a) 836cm³
b) 127.6cm

Q16) 60 + 80 = 140
140 x 7 = 980

Q17) a) 20 + 12 = 32
48 ÷ 32 = 1.5
b) 1.5 x 4 = 6
6 x 1.5 = 9
1.5 x 6 = 9
9 x 1.5 = 13.5
4.5 x 1.5 = 6.75
3 x 1.5 = 4.5
4.5 + 6.75 + 13.5 + 9 = 33.75
1.5 x 6 = 9
1.5 x 10 = 15
9 x 15 = 135
135 – 33.75 = 101.25

AI TONG SCHOOL

2021

PRELIMINARY EXAMINATION
PRIMARY 6

MATHEMATICS
PAPER 1
(Booklet A)

DURATION (Booklets A and B) : 1 h

DATE : 20 AUGUST 2021

INSTRUCTIONS

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.
The use of calculators is **NOT** allowed.

Name: _____( )

Class: Primary 6 _____ **Marks:**

Paper 1 (Booklet A)	**20**

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Paper 1
Booklet A

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

---

1 What is two million six hundred and four thousand in numerals?

(1) 2 004 600
(2) 2 064 000
(3) 2 600 400
(4) 2 604 000

2 What is the value of $78 \div (19 - 17) \times 3 - 2 + 9$?

(1) 20
(2) 2
(3) 106
(4) 124

3 Which of the following is the likely capacity of a water bottle?

(1) 6.5 ml
(2) 65 ml
(3) 650 ml
(4) 6500 ml

4 A box contained a total of w red and yellow beads. There were 24 more yellow beads than red beads. How many red beads were there in the box?

(1) $(\frac{w}{2} - 24)$

(2) $(\frac{w}{2} + 24)$

(3) $(\frac{w + 24}{2})$

(4) $(\frac{w - 24}{2})$

5 Four boys shared 3 similar pizzas equally. What fraction of a pizza did each boy get?

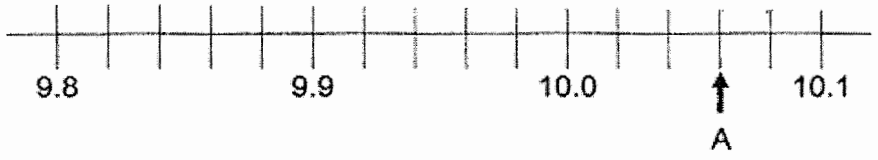
(1) $\frac{4}{3}$

(2) $\frac{3}{4}$

(3) $\frac{1}{3}$

(4) $\frac{1}{4}$

6 In the number line, which number is represented by A?



(1) 10.03

(2) 10.06

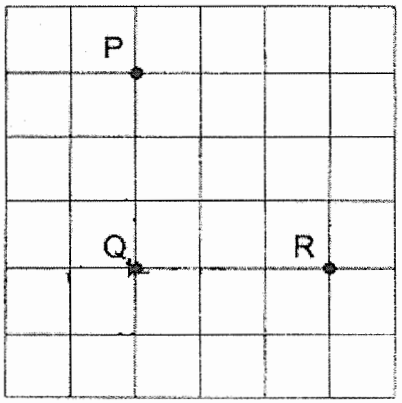
(3) 10.3

(4) 10.6

7 The average of three numbers is 17. When a fourth number is added, the average of the four numbers becomes 21. What is the fourth number?

(1) 33
(2) 28
(3) 51
(4) 84

8 The diagram shows three points P, Q and R on a square grid.



In which direction is R from Q?

(1) East
(2) West
(3) South-East
(4) South-West

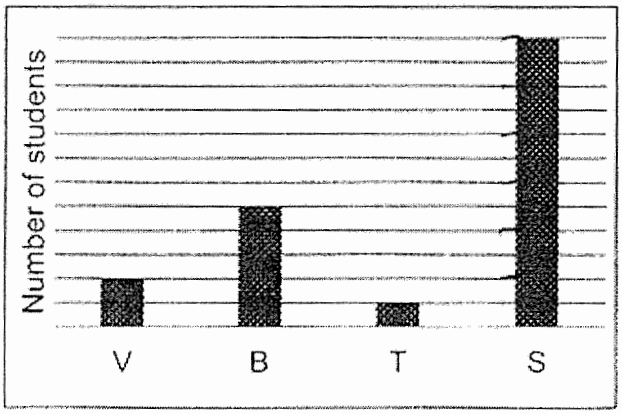
9 A bank gives 0.5% interest per year. Mrs Ang deposits $3000 in the bank. How much interest will she receive at the end of one year?

(1) $150
(2) $15
(3) $1.50
(4) $0.15

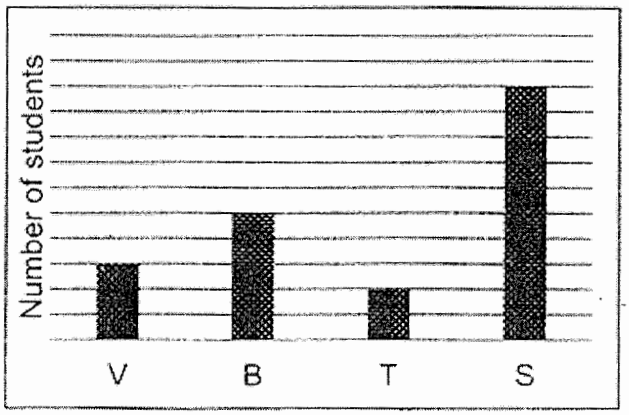
10 A group of students were surveyed on their favourite sport. The table below shows the number of students who chose each sport as their favourite sport. Each student could only choose one sport.

Favourite Sport	Number of students
Volleyball (V)	4
Badminton (B)	10
Tennis (T)	2
Soccer (S)	24

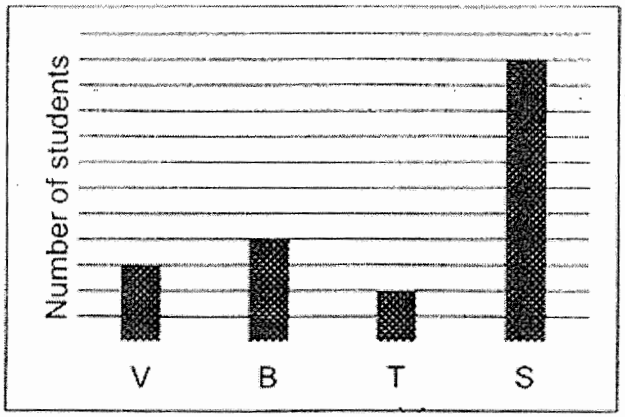
Which of the graphs shows the correct representation of the students' favourite sport?



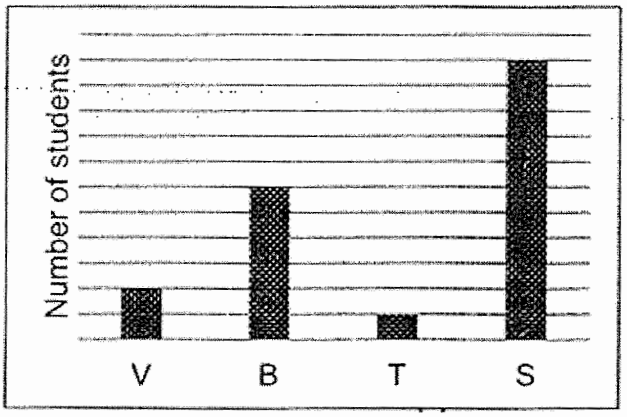
(1)



(2)

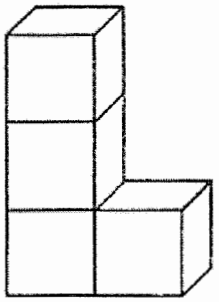


(3)



(4)

11 The solid below was made up of four cubes joined together. Raja painted the whole solid, including the base. Then, he separated the four cubes. What was the total number of the faces that were painted?



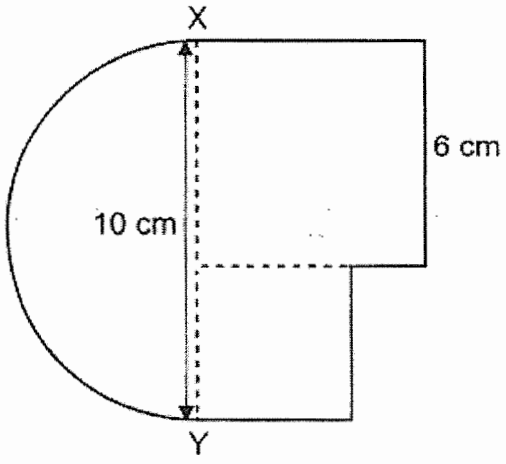
(1) 18

(2) 19

(3) 20

(4) 21

12 The figure below is made up of a semicircle and 2 squares.
The length of XY is 10 cm and the length of the larger square is 6 cm.
Find the perimeter of the figure. Give your answer in terms of π.



(1) $(5\pi + 20)$ cm

(2) $(5\pi + 22)$ cm

(3) $(10\pi + 20)$ cm

(4) $(10\pi + 22)$ cm

13 Yi Yang had 3 empty containers X, Y and Z. He poured an equal amount of water into each of them. After that, $\frac{1}{3}$ of X was filled with water, $\frac{1}{4}$ of Y was filled with water and $\frac{2}{5}$ of Z was filled with water. What was the ratio of the capacity of container X to container Y to container Z?

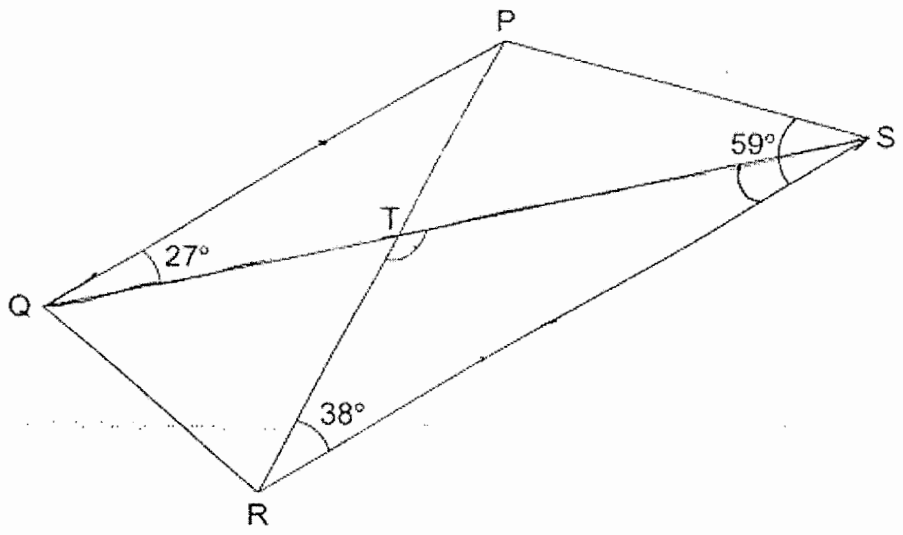
(1) 1 : 1 : 2

(2) 3 : 4 : 5

(3) 4 : 5 : 7

(4) 6 : 8 : 5

14 In the diagram, PQRS is a trapezium. PQ // SR. PR and QS are straight lines. ∠PQS = 27°, ∠PSR = 59° and ∠PRS = 38°. Find ∠STR.



(1) 104°

(2) 115°

(3) 121°

(4) 126°

15 Sandra took three tests. She scored 60 marks in the first test. Her score increased by 25% in the second test. In her third test, her score reduced by 20% from the second test. How many marks did she score in total for the three tests?

(1) 213

(2) 210

(3) 195

(4) 190

AI TONG SCHOOL

2021

PRELIMINARY EXAMINATION
PRIMARY 6

MATHEMATICS
PAPER 1
(Booklet B)

DURATION (Booklets A and B) : 1 h

DATE : 20 AUGUST 2021

INSTRUCTIONS

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answer in this booklet.
The use of calculators is **NOT** allowed.

Name: _____( )

Class: Primary 6 _____ **Marks:**

Paper 1 (Booklet B)	**25**

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Paper 1
Booklet B

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

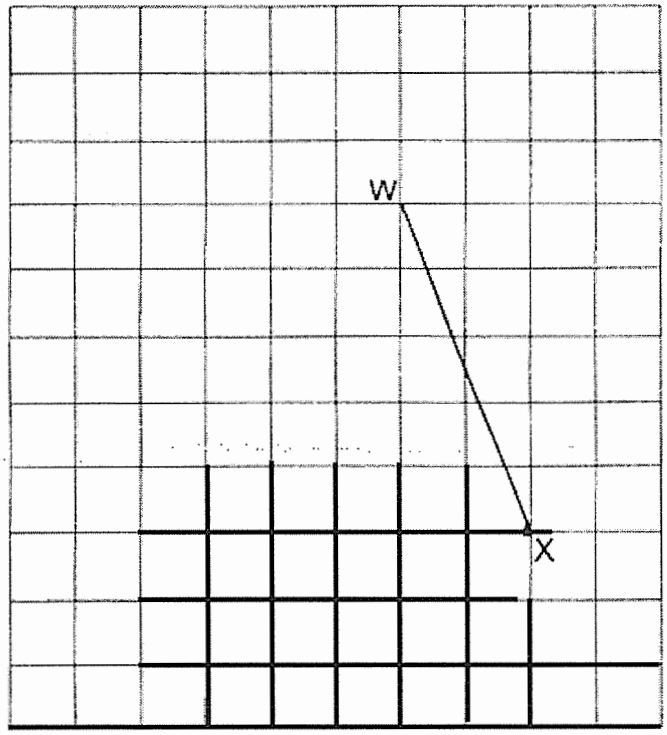
(5 marks)

Do not write in this space

16 Find the value of 45.1 ÷ 12.28.

Ans: _____

17 In the square grid, line WX is drawn. Lines WX and XY are of the same length. XY is perpendicular to WX. Draw and label XY in the square grid.

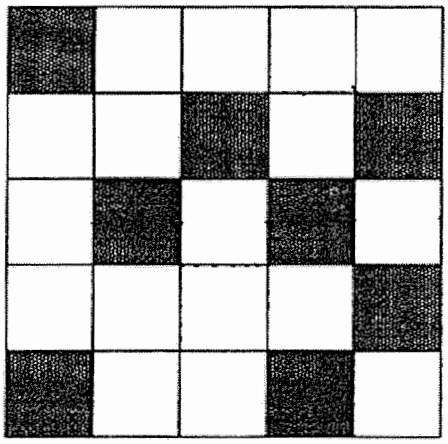


Do not write in this space

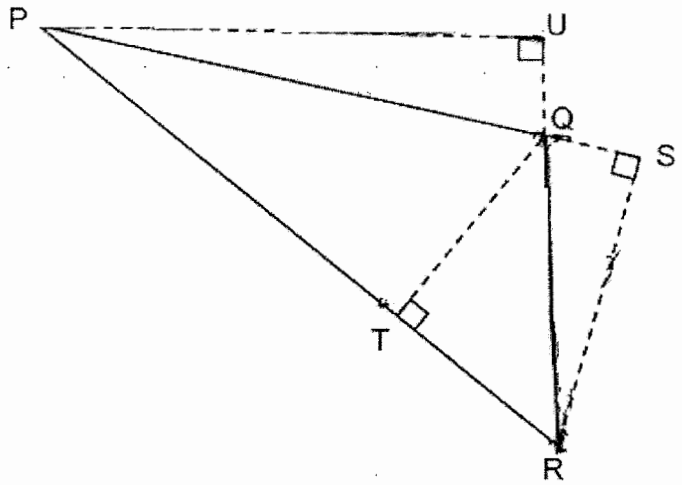
18 Find the value of $6 + 3y + 5 - y$ when $y = 7$.

Ans: _____

19 The figure below is made up of identical squares. Shade two more squares so that the figure has a line of symmetry.



20 The figure below is made up of straight lines. QR is the base of Triangle PQR. Name the height of Triangle PQR.



Ans: _____

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

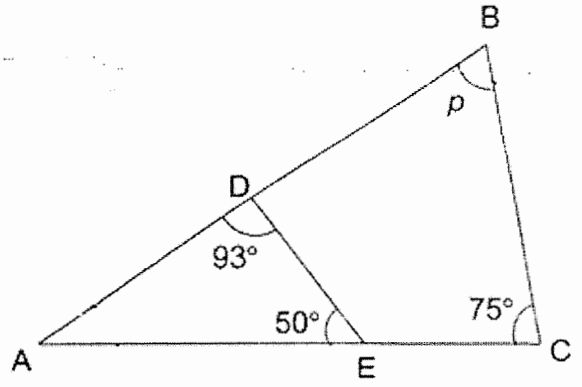
21 The table shows the cost of renting a bicycle.

Bicycles For Rent	
First hour	\$7
Every additional $\frac{1}{2}$ hour	\$4

Joseph has \$20. What is the longest duration he can rent the bicycle for?

Ans: _____ h

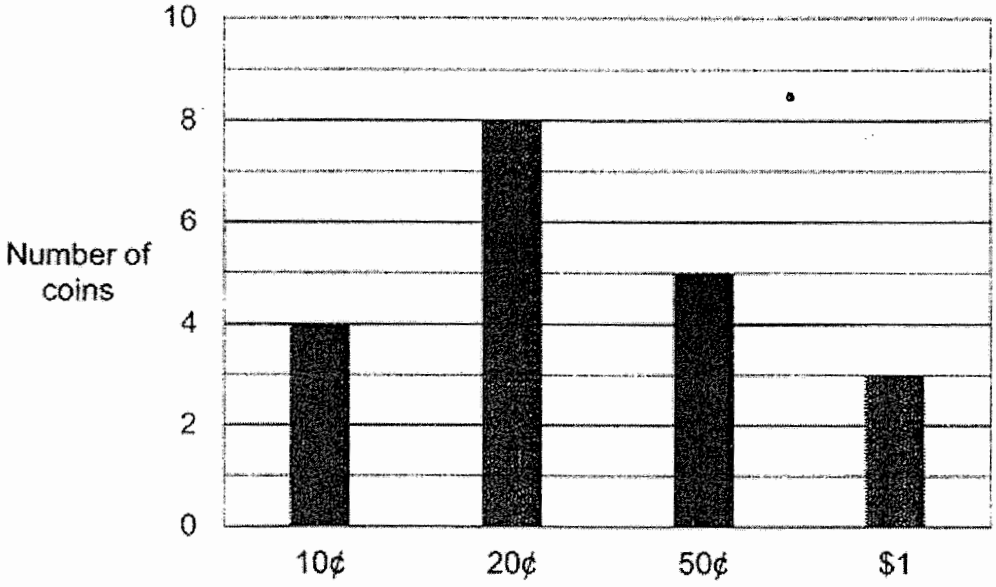
22 In the figure, ABC and ADE are triangles. Find $\angle p$.



Ans: _____ °

Do not write in this space

23 The bar graph shows the number of coins Jimmy saved.



(a) How many coins did Jimmy save?

(b) What fraction of the coins were 50¢ coins?

Ans: (a)_____

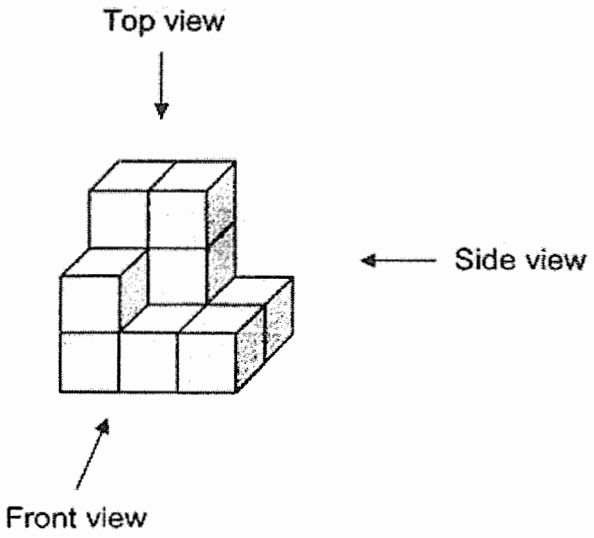
(b)_____

24 The average of 5 consecutive odd numbers is 27.
What is the smallest number?

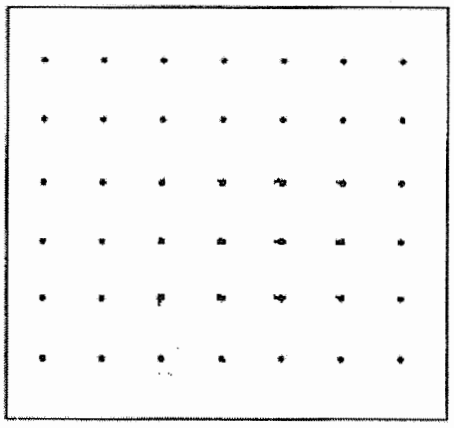
Ans: _____

Do not write in this space

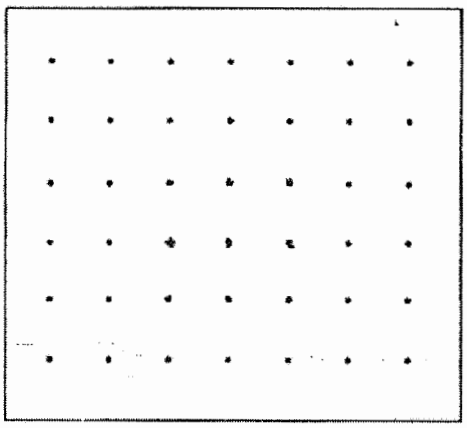
25 The solid below is made up of 11 unit cubes.



Draw the top view and side view of the solid on the grids below.



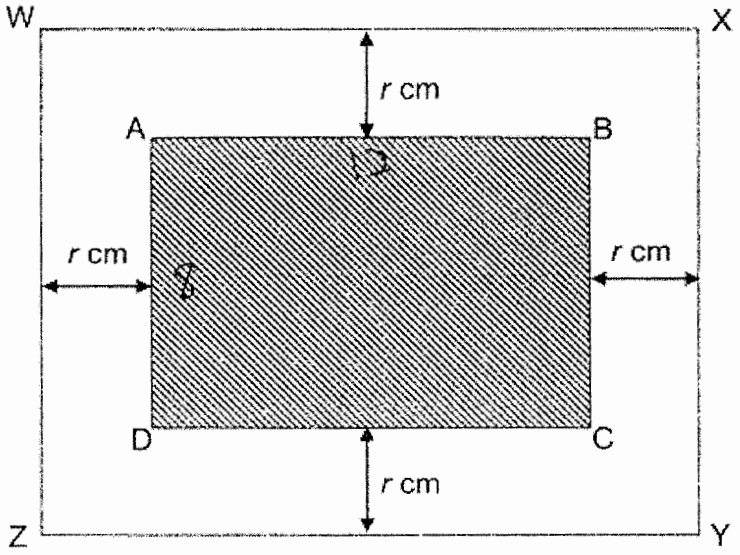
Top View



Side View

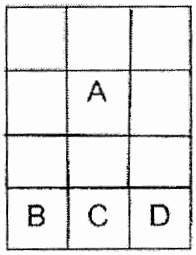
Do not write in this space

26 A rectangular piece of paper ABCD is pasted on a rectangular cardboard WXYZ, leaving a border of width r cm around it. AB = 12 cm and AD = 8 cm. The perimeter of the cardboard WXYZ is 64 cm. Find the value of r.



Ans: _____

27 The figure is made up of four squares A, B, C and D. Find the ratio of the area of Square A to the total area of the figure. Express your answer in the simplest form.

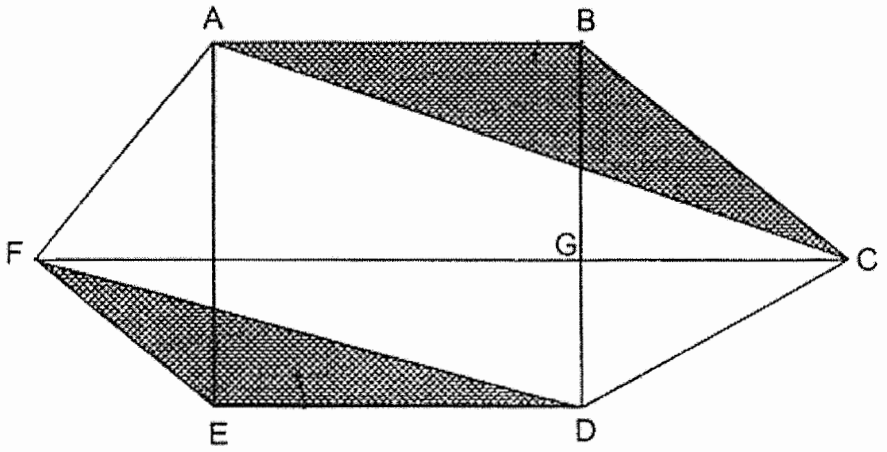


Ans: _____

Do not write in this space

28 In the figure below, ABDE is a square. ABC, BCD, DEF and AEF are triangles. Line FGC is a straight line parallel to line AB.

The length of GD is $\frac{2}{5}$ the length of BD.



Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

	Statement	True	False	Not Possible To Tell
(a)	The total area of the shaded triangles ABC and DEF is equal to the area of square ABDE.			
(b)	The ratio of the area of Triangle DEF to the area of Triangle ABC is 2 : 3.			

Do not write in this space

29 A group of students participated in a paper crane folding competition. The table below shows the number of paper cranes each student folded in the first round of the competition.

Number of paper cranes folded	1	2	3	4	5	6
Number of students	4	5	11	9	7	2

(a) How many students folded more than 3 paper cranes?

(b) Students who did not fold enough paper cranes in the first round could not participate in the second round. 9 students could not participate in the second round. What was the least number of paper cranes a student had to fold in order to participate in the second round?

Ans: (a)_____

(b)_____

30 The first 15 numbers of a number pattern are given below. The pattern has 633 numbers. How many "0" are there in the pattern?

5, 4, 0, 0, 2, 5, 4, 0, 0, 2, 5, 4, 0, 0, 2, ...

1st 15th

Ans: _____

End of Paper 1

AI TONG SCHOOL

2021

PRELIMINARY EXAMINATION
PRIMARY 6

MATHEMATICS
PAPER 2

DURATION : 1 h 30 min

DATE : 20 AUGUST 2021

INSTRUCTIONS

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is allowed.

Name: _____( )

Class: Primary 6 _____

Marks :

Parent's Signature : _____	
Date : _____	

Paper 1	45
Paper 2	55
Total	100

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Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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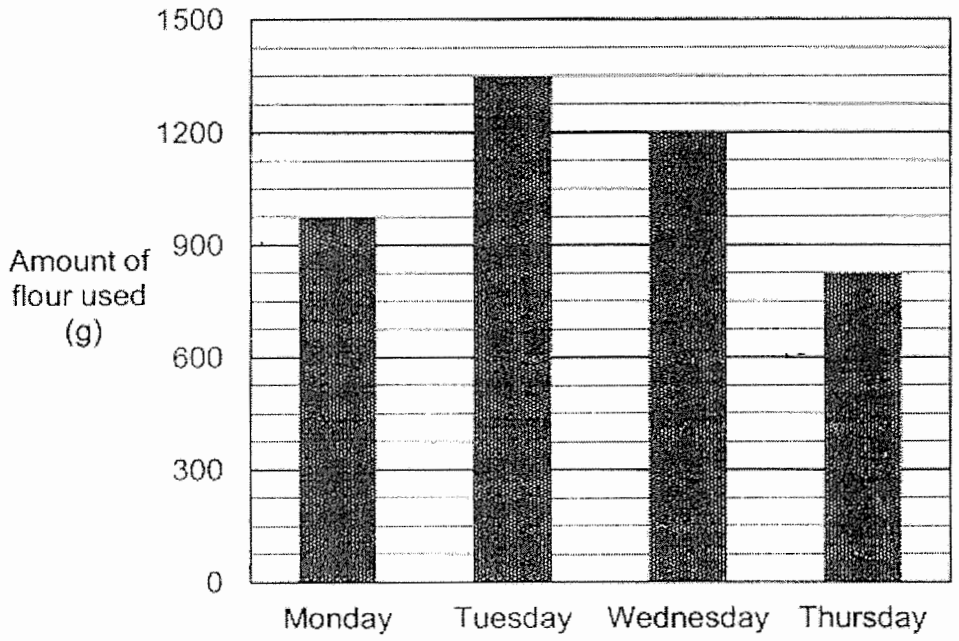
1 The bar graph below represents the amount of flour Mrs Tang used from Monday to Thursday.

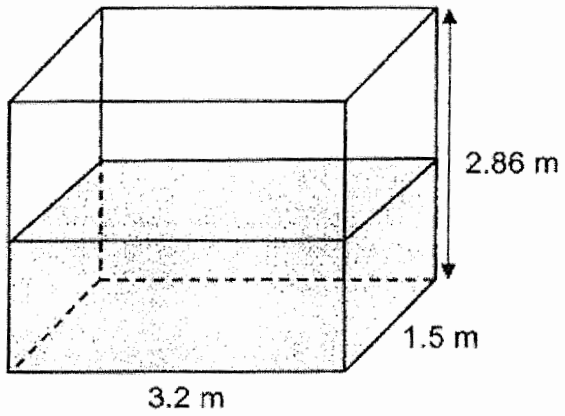


What is the average amount of flour Mrs Tang used per day?

Ans: _____ g

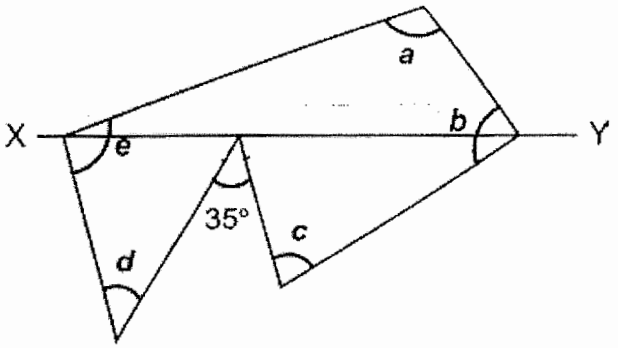
Do not write in this space

2 James filled half a rectangular tank measuring 3.2 m by 1.5 m by 2.86 m with water. Find the volume of water in the tank.
Give your answer correct to the nearest cubic metre.



Ans: _____ m^3

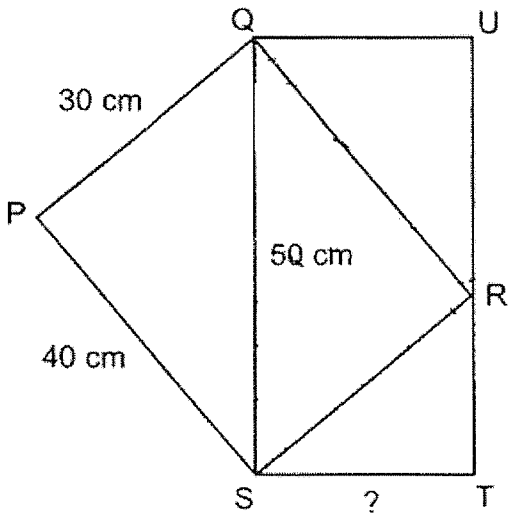
3 In the figure, XY is a straight line.
Find the sum of $\angle a$, $\angle b$, $\angle c$, $\angle d$ and $\angle e$.



Ans: _____ °

Do not write in this space

4 In the figure below, PQRS and QUTS are rectangles.
PQ = 30 cm, PS = 40 cm and QS = 50 cm.
Find the length of ST.

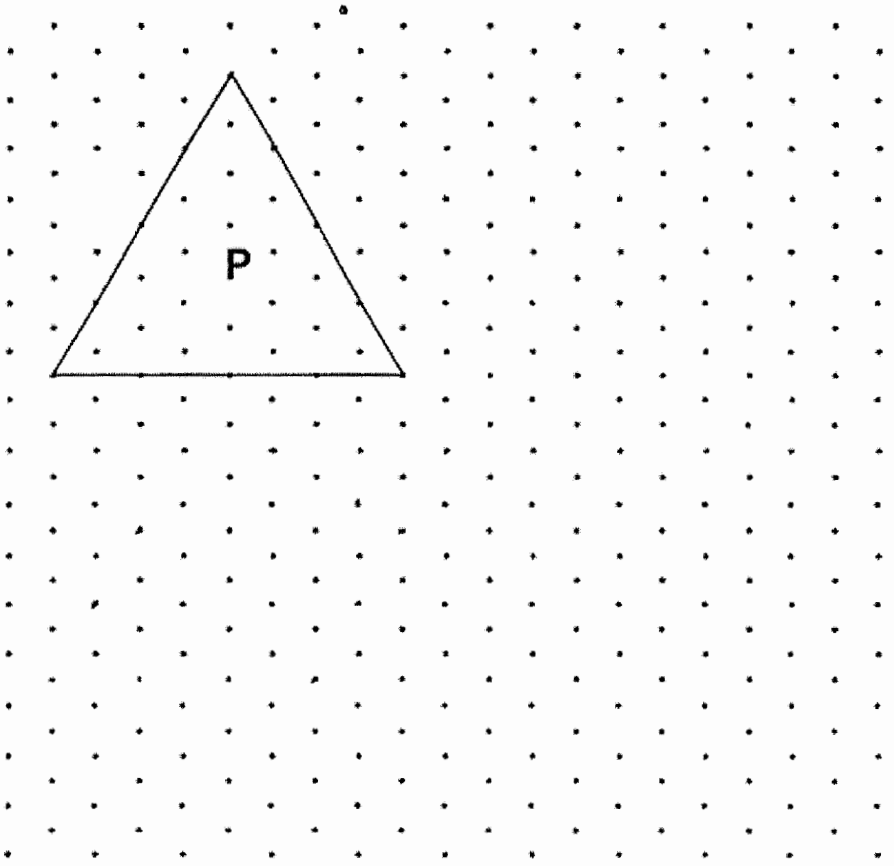


Ans: _____cm

Do not write in this space

5 The figure shows an equilateral triangle, P.

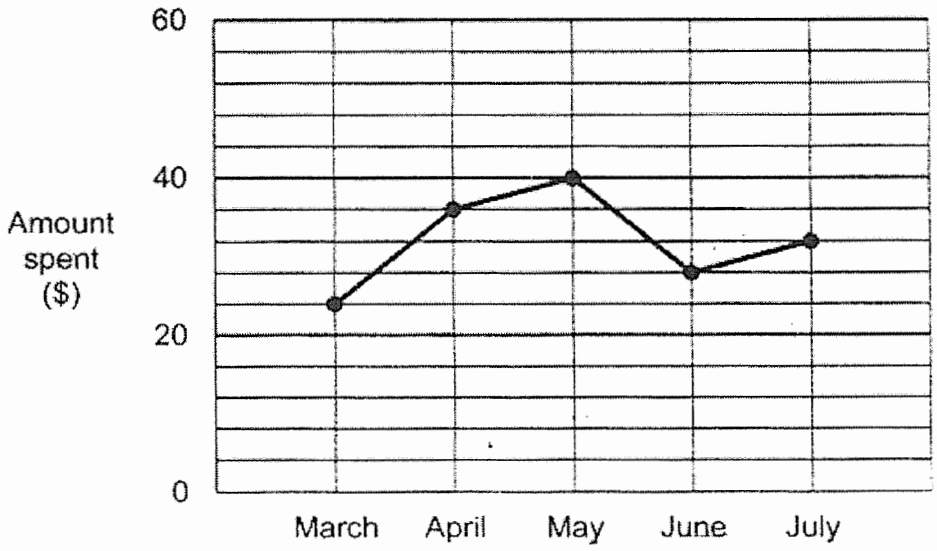
By joining dots on the grid with straight lines, draw a rhombus with the same perimeter as P.



For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in bracket [ ] at the end of each question or part-question. For questions which require units, give your answers in the units stated. (45 marks)

Do not write in this space

6 Kumar receives the same amount of pocket money from his father every month from March to July. He spent some of his pocket money and saved the rest. The line graph below shows the amount of pocket money Kumar spent from March to July.



(a) Kumar saved $14 in April. How much pocket money does he receive from his father each month?

(b) What is the percentage increase in the amount of money Kumar saved from May to June?

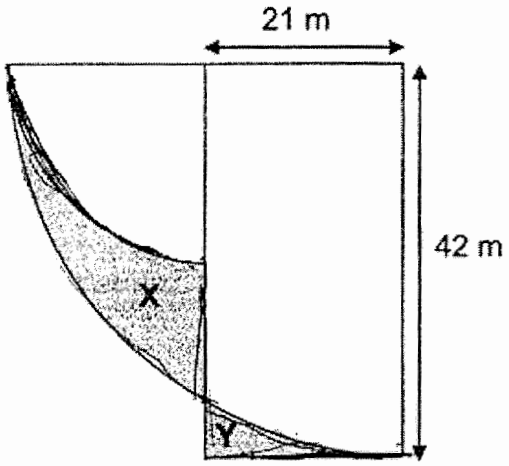
Ans: (a) _____ [1]

(b) _____ [2]

Do not write in this space

7 The figure is made up of two quarter circles and a rectangle overlapping one another. The radius of the larger quarter circle is the same as the length of the rectangle. The length of the rectangle is 42 m and its breadth is 21 m. Find the sum of the perimeters of the two shaded parts X and Y.

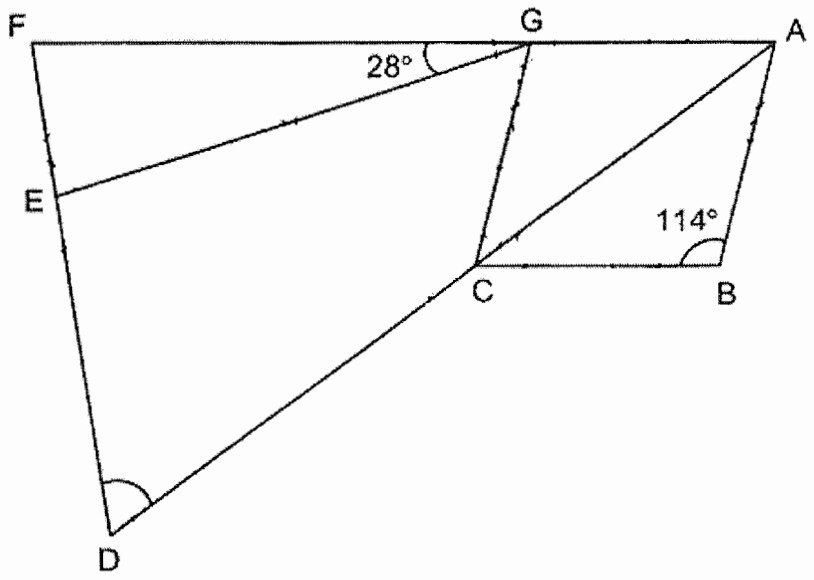
Take $\pi = \frac{22}{7}$.



Ans: _____ [3]

Do not write in this space

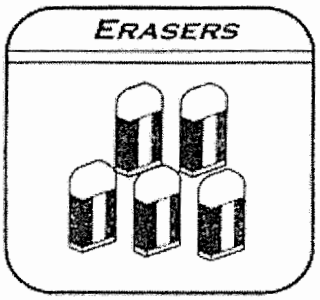
8 In the figure below, ABCG is a rhombus. EFG and DAF are triangles. GE = GF. ∠EGF = 28° and ∠ABC = 114°. Find ∠CDE.

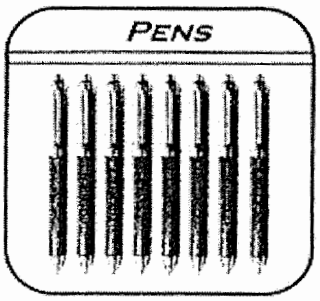


Ans: _____[3]

Do not write in this space

9 Bookshop A and Bookshop B sold erasers in packs of 5 and pens in packs of 8. The two bookshops sold a total of 1596 erasers and pens. Bookshop A sold twice as many packs of erasers as pens while Bookshop B sold twice as many packs of pens as erasers. The number of pens sold in both bookshops was the same. How many packs of erasers did both bookshops sell altogether?

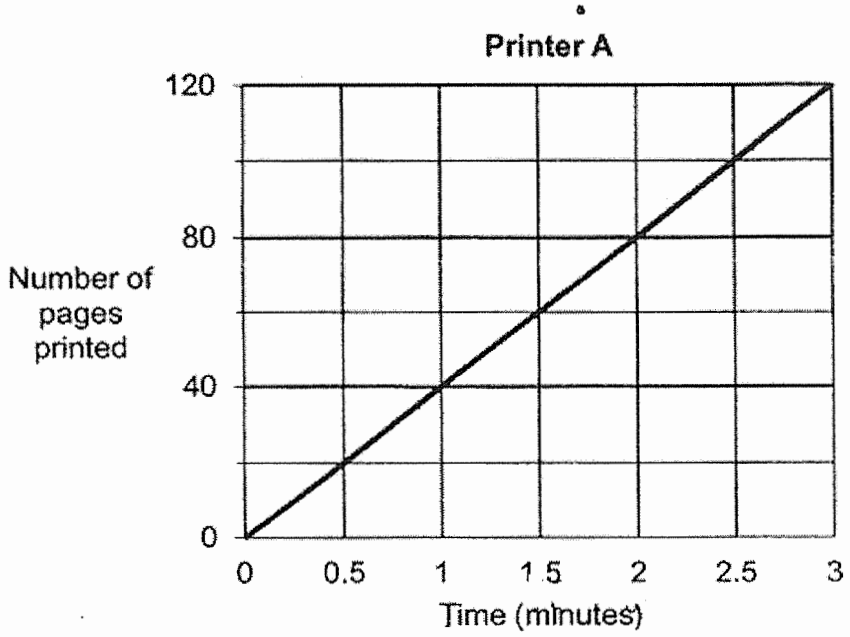




Ans: _____ [3]

Do not write in this space

10 Mr Tan used two different printers for a printing job. The graph below shows the number of pages printed by Printer A in a given period of time.



Mr Tan started printing on both printers at 10 30. He turned off Printer B at 10 45. Printer A was turned off at 10 48. He printed 1890 pages altogether. Printer B printed an equal number of pages every minute. How many pages did Printer B print in one minute?

Ans: _____ [3]

Do not write in this space

11 Ben earned $2.50 for delivering a small parcel and earned more for delivering a big parcel. He delivered 3 times as many small parcels as big parcels and earned a total of $156.80. He earned $53.20 less for delivering all the big parcels than all the small parcels.
How many big parcels did Ben deliver?

Ans: _____ [3]

Do not write in this space

12 Mrs Tan bought $\frac{4}{5}$ as many pears as apples and $\frac{2}{5}$ as many oranges as apples. She paid a total of \$150 for all the fruits. The ratio of the amount of money she spent on the pears to the amount she spent on the apples was 2 : 3. The ratio of the amount of money she spent on the pears to the amount of money she spent on the oranges was 1 : 5. Each apple cost \$0.50. Find the total number of fruits Mrs Tan bought.

Ans: _____ [4]

Do not write in this space

13 Figure 1 shows two identical large semicircles and two identical small semicircles overlapping within a square tile. The length of the square tile is 40 cm. The diameter of the small semicircle is 20 cm.

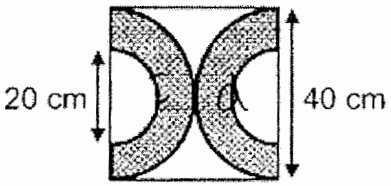


Figure 1

(a) What is the area of the shaded parts within each tile?

(b) Figure 2 shows part of a path completely covered with such tiles. The path is 48 m long and 40 cm wide. Find the area of the **unshaded path.**

Take $\pi = 3.14$.

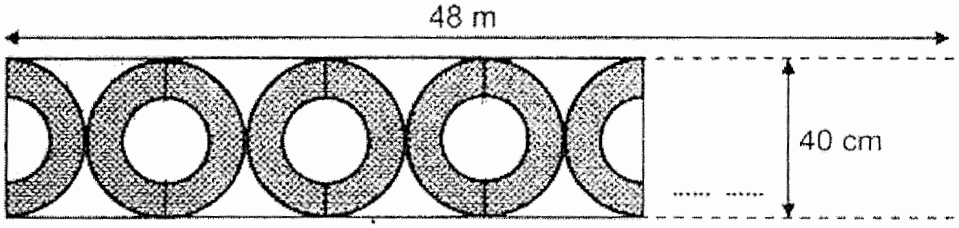


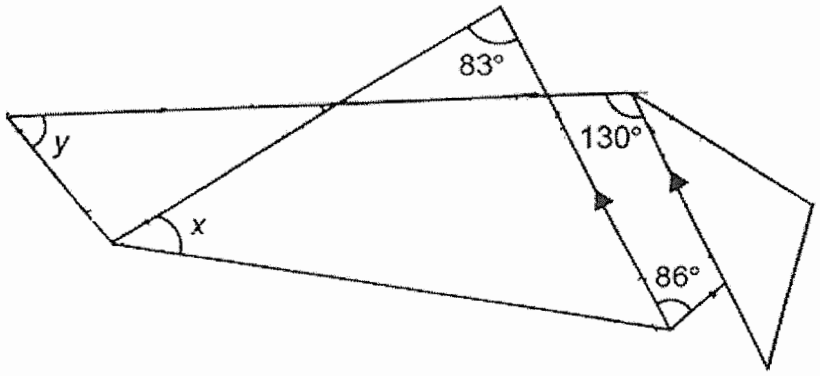
Figure 2

Ans: (a) _____ [1]

(b) _____ [3]

Do not write in this space

14 Jane folded two corners of a triangular piece of paper as shown in the figure below.



(a) Find $\angle x$.

(b) Find $\angle y$.

Ans: (a) _____ [2]

(b) _____ [3]

Do not write in this space

15 At a paint shop, there were some identical pails. 60% of the pails were completely filled with paint. 32% of the pails were $\frac{1}{3}$ filled with paint. The remaining 20 pails were empty. The total amount of paint in the pails was 1590 ℓ.

(a) How many pails were completely filled with paint?

(b) What was the amount of paint in one full pail?

Ans: (a) _____ [2]

(b) _____ [2]

Do not write in this space

16 Roger took part in a shooting game. He had to collect points by shooting gold and silver stars. He scored 8 points for each gold star shot and 3 points for each silver star shot.
At the end of the game, he scored 730 points less from shooting silver stars than gold stars. Roger shot 35 fewer silver stars than gold stars.
How many stars did Roger shoot altogether?

1 Gold	1 Silver
☆	☆
8 points	3 points

Ans: _____ [5]

Do not write in this space

17 Ken had 2 boxes of beads. Box A had 60 more beads than Box B at first. Ken then moved $\frac{1}{4}$ of the beads from Box A to Box B.

Next, he moved $\frac{2}{5}$ of the beads from Box B back into Box A.

Ken then added another 87 beads to Box A. In the end, the number of beads in Box A was twice the number it contained at first.

(a) How many beads from Box B were moved back into Box A?

(b) How many beads were there in Box A in the end?

Ans: (a) _____ [3]

(b) _____ [2]

END OF PAPER
CHECK YOUR WORK CAREFULLY !

SCHOOL : AITONG PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2020 PRELIM

PAPER 1 BOOKLET A

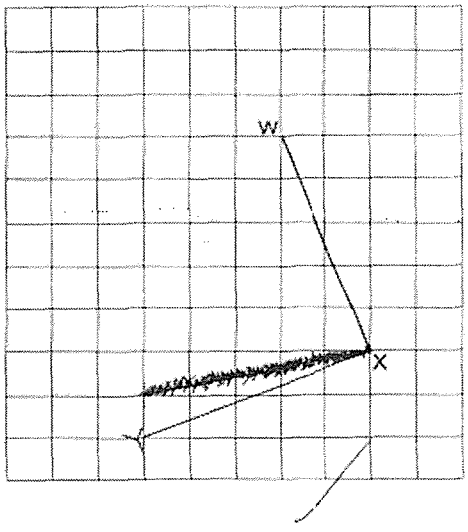
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	**4**	**3**	**4**	**2**	**2**	**1**	**1**	**2**	**1**

Q 11	Q12	Q13	Q14	Q15
1	**2**	**4**	**2**	**3**

PAPER 1 BOOKLET B

Q16) 32.82

Q17)



Q18) **6 + 3y + 5 – y**

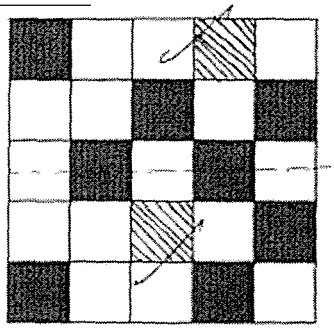
= 6 + 21 + 5 – 7

= 27 + 5 – 7

= 32 – 7

= 25

Q19)



Q20) **PU**

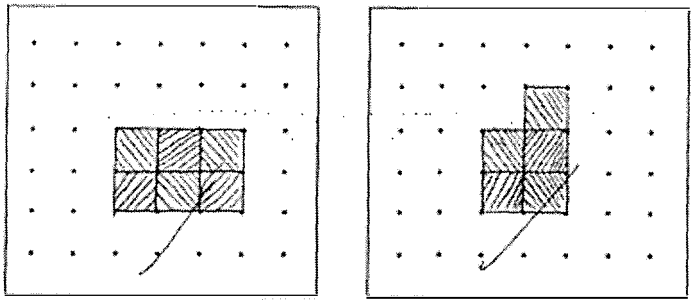
Q21) **2.5h**

Q22) **180° – 93° – 50° – 50°**
= 130° – 93°
= 37°

Q23) **a)20**
b) ¼

Q24) **23**

Q25)



Top View Side View

Q26) **3**

Q27) **3 : 4**

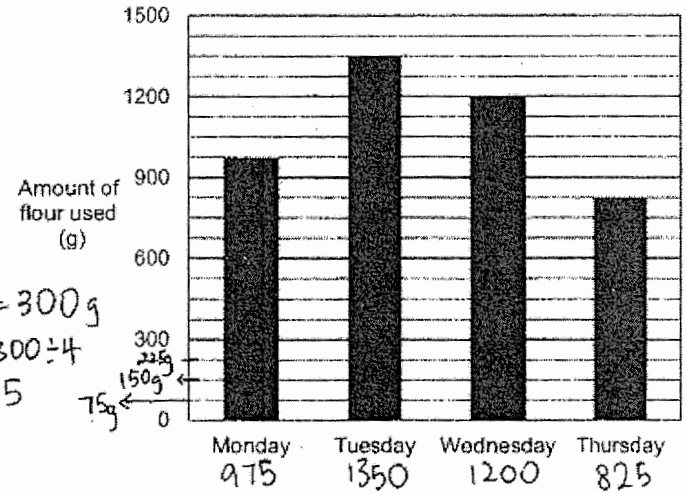
Q28) **a)False**
b)True

Q29)	**a) 18** **b)3**
Q30)	**253**

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1 The bar graph below represents the amount of flour Mrs Tang used from Monday to Thursday.



+ gaps = 300 g
gap = 300 ÷ 4
= 75

225 g
150 g
75 g

Monday 975
Tuesday 1350
Wednesday 1200
Thursday 825

What is the average amount of flour Mrs Tang used per day?

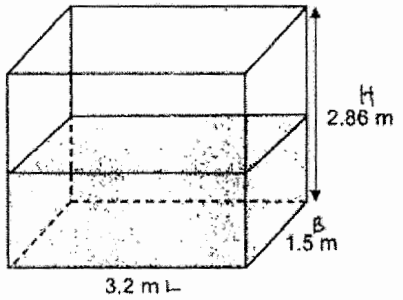
Total = 975 + 1350 + 1200 + 825
= 4350

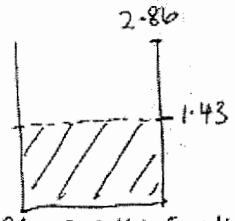
Ave = 4350 ÷ 4
= 1087.5

Ans: 1087.5 g

Do not write in this space

2 James filled half a rectangular tank measuring 3.2 m by 1.5 m by 2.86 m with water. Find the volume of water in the tank.
Give your answer correct to the nearest cubic metre.



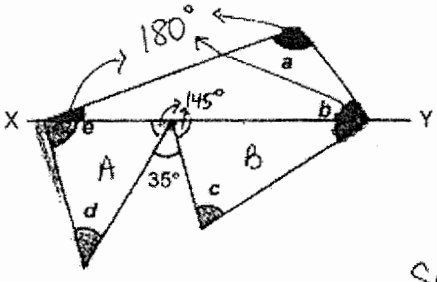


BA = 3.2 × 1.5 = 4.8

Vol = BA × H
= 4.8 × 1.43
= 6.864
≈ 7

Ans: 7 m³

3 In the figure, XY is a straight line.
Find the sum of ∠a, ∠b, ∠c, ∠d and ∠e.



180° − 35°
= 145°

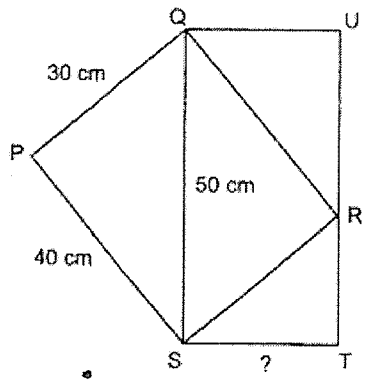
ΔA + ΔB
= 180° + 180°
= 360°
= 360° − 145°
= 215°

Sum = 180° + 215°
= 395°

Ans: 395 °

Do not write in this space

4 In the figure below, PQRS and QUTS are rectangles.
PQ = 30 cm, PS = 40 cm and QS = 50 cm.
Find the length of ST.



*Note
Area
ΔQURT ΔSRT
= ΔQRS

ΔQRS = (30 x 40) ÷ 2
= 600

Rect QUTS = 600 x 2
= 1200

ST = 1200 ÷ 50
= 24

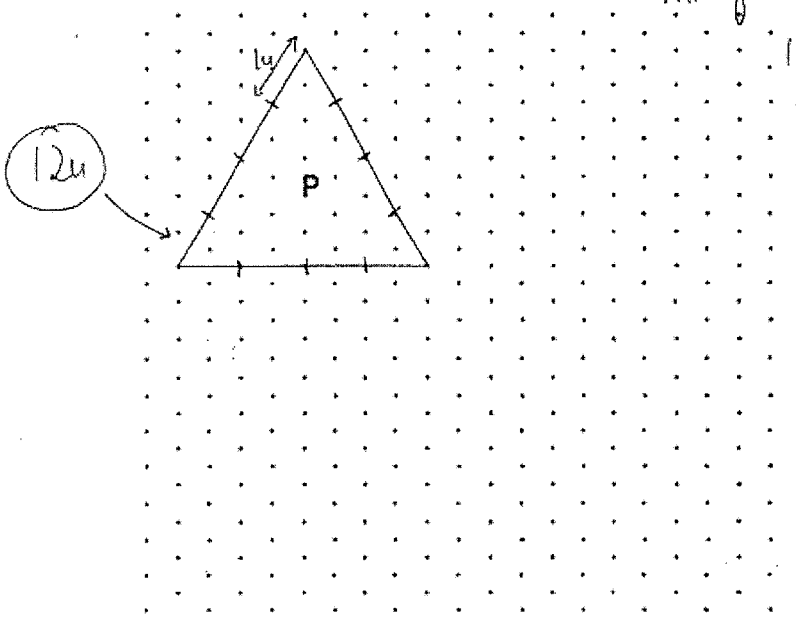
Ans: 24 cm

Do not write in this space

5 The figure shows an equilateral triangle, P.

By joining dots on the grid with straight lines, draw a rhombus with the same perimeter as P.

All equal sides

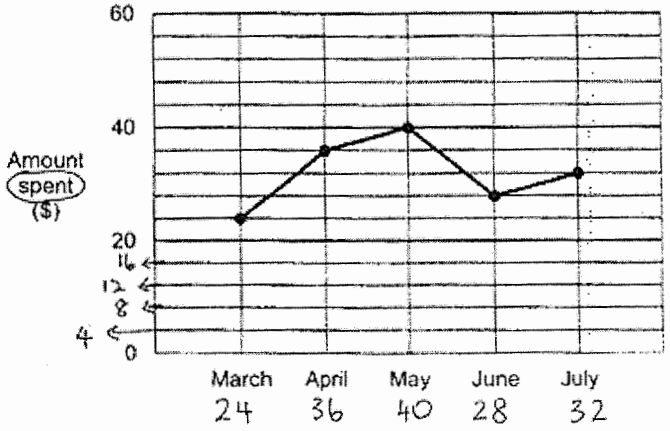


12u ÷ 4
= 3u

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in bracket [ ] at the end of each question or part-question. For questions which require units, give your answers in the units stated. (45 marks)

Do not write in this space

6 Kumar receives the same amount of pocket money from his father every month from March to July. He spent some of his pocket money and saved the rest. The line graph below shows the amount of pocket money Kumar spent from March to July.



(a) Kumar saved $14 in April. How much pocket money does he receive from his father each month?

(b) What is the percentage increase in the amount of money Kumar saved from May to June?

Saved + Spent = Pocket $

14 + 36 = 50 (a)

May (100%)

Saved = 50 - 40

= 10

June

Saved = 50 - 28

= 22

↑ 22 - 10

= 12

% ↑ = $\frac{12}{10} \times \frac{100}{1}$ = 120 (b)

Ans: (a) $50 [1]

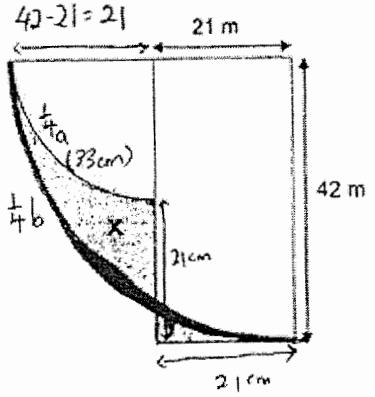
(b) 120% [2]

5

7 The figure is made up of two quarter circles and a rectangle overlapping one another. The radius of the larger quarter circle is the same as the length of the rectangle. The length of the rectangle is 42 m and its breadth is 21 m. Find the sum of the perimeters of the two shaded parts X and Y.

HL → L → Add ✓

Take $\pi = \frac{22}{7}$.



$\frac{1}{4}$a (D = 21 × 2 = 42)

$\frac{1}{4} \times \pi \times D$

$= \frac{1}{4} \times \frac{22}{7} \times \frac{42}{1}$ (÷ 3)

= 33

$\frac{1}{4}$b

D = 42 × 2 = 84

$\frac{1}{4} \times \pi \times D$

$= \frac{1}{4} \times \frac{22}{7} \times \frac{84}{1}$ (÷ 4, ÷ 3)

= 66

P = 33 + 66 + 21 + 21

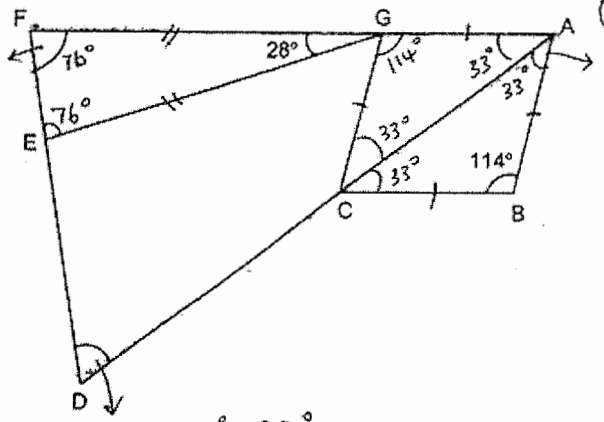
= 141

Ans: 141 m [3]

Do not write in this space

Do not write in this space

8 In the figure below, ABCG is a rhombus. EFG and DAF are triangles. GE = GF. ∠EGF = 28° and ∠ABC = 114°. Find ∠CDE.



180° - 28° = 152°
152° ÷ 2 = 76°

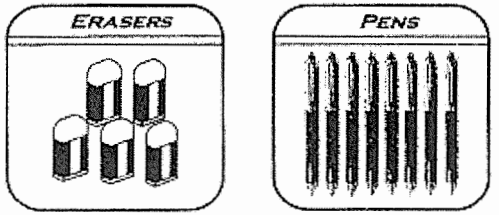
(1) 180 - 114 = 66
66 ÷ 2 = 33

180° - 76° - 33°
= 71°

Ans: 71° [3]

Do not write in this space

9 Bookshop A and Bookshop B sold erasers in packs of 5 and pens in packs of 8. The two bookshops sold a total of 1596 erasers and pens. Bookshop A sold twice as many packs of erasers as pens while Bookshop B sold twice as many packs of pens as erasers. The number of pens sold in both bookshops was the same. How many packs of erasers did both bookshops sell altogether?



SHOP A

	E	P
Qty	2u	1u
Unit Value	5	8
Total Value	10u	8u
	×2	×2
	20p	16p

SHOP B

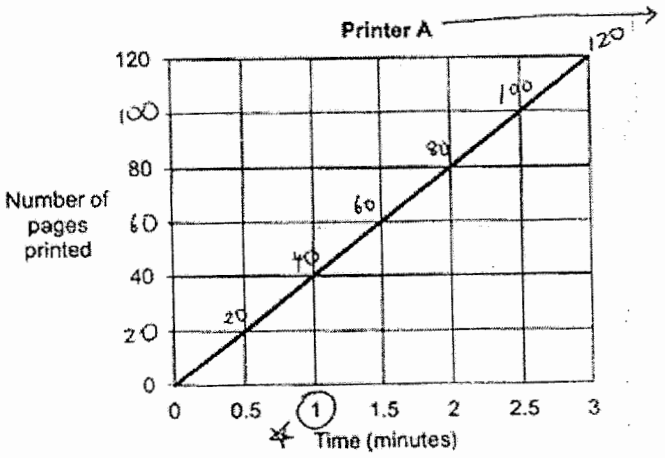
	E	P
Qty	1p	2p
Unit Value	5	8
Total Value	5p	16p

Same.

20p + 16p + 5p + 16p = 57p
57p = 1596
1p = 1596 ÷ 57 = 28
20p + 5p
25p = 28 × 25 = 700 (erasers)
Packs = 700 ÷ 5 = 140

Ans: 140 [3]

10 Mr Tan used two different printers for a printing job. The graph below shows the number of pages printed by Printer A in a given period of time.



1 min ⇓ 40 pages

Mr Tan started printing on both printers at 10 30. He turned off Printer B at 10 45. Printer A was turned off at 10 48. He printed 1890 pages altogether. Printer B printed an equal number of pages every minute. How many pages did Printer B print in one minute?

Printer A
1 min = 40
18 min = 40 × 18 = 720

1030 — 1045 — 1048

Printer B
15 min = 1890 − 720
= 1170
1 min = 1170 ÷ 15
= 78

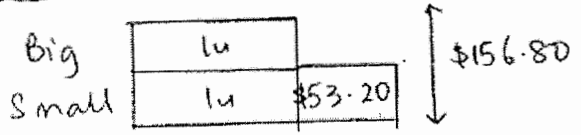
Total 1890 pages

Ans: 78 [3]

11 Ben earned $2.50 for delivering a small parcel and earned more for delivering a big parcel. He delivered 3 times as many small parcels as big parcels and earned a total of $156.80. He earned $53.20 less for delivering all the big parcels than all the small parcels. How many big parcels did Ben deliver?

unit value. big. model. Qty. Value.

Total Value



2u = 156.80 − 53.20
= 103.60
1u = 103.60 ÷ 2 = 51.80 (BIG)
Small = 51.80 + 53.20 = 105

	Small	Big
Qty	3u	1u
Unit	2.50	2.50 + 1p
Total	7.50u	2.50u + 1up

7.50u = $105
1u = 105 ÷ 7.50
= 14

Ans: 14 [3]

12 Mrs Tan bought $\frac{4}{5}$ as many pears as apples and $\frac{2}{5}$ as many oranges as apples. She paid a total of $150 for all the fruits. The ratio of the amount of money she spent on the pears to the amount she spent on the apples was 2 : 3. The ratio of the amount of money she spent on the pears to the amount of money she spent on the oranges was 1 : 5. Each apple cost $0.50. Find the total number of fruits Mrs Tan bought.

Do not write in this space

Qty

P : A : O

4 : 5

5 : 2

4 : 5 : 2

Value

P : A : O

2 : 3

1×2 : 5×2

2 : 3 : 10

	P	A	O	Total
Qty	4u	5u	2u	11u
Unit Value		50¢		
Total Value	2p	(250u) 3p	10p	$150

3000¢

15p = $150

1p = $150 ÷ 15 = $10

3p = $10 × 3 = $30 (Apples)

$30 = 3000¢

1.

250u = 3000¢

1u = 3000 ÷ 250

= 12

11u = 12 × 11 = 132

Ans: 132 [4]

13 Figure 1 shows two identical large semicircles and two identical small semicircles overlapping within a square tile. The length of the square tile is 40 cm. The diameter of the small semicircle is 20 cm.

Do not write in this space

BIG

D = 40 R = 20

π × R × R

= 3.14 × 20 × 20

= 1256

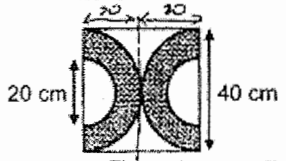


Figure 1

Small D = 20 R = 10

3.14 × 10 × 10 = 314

PLAN: BIG circle − Small circle

Shaded = 1256 − 314

= 942 (a)

(a) What is the area of the shaded parts within each tile?

(b) Figure 2 shows part of a path completely covered with such tiles. The path is 48 m long and 40 cm wide. Find the area of the unshaded path.

Take π = 3.14.

×100

48 (m) = 4800 cm.

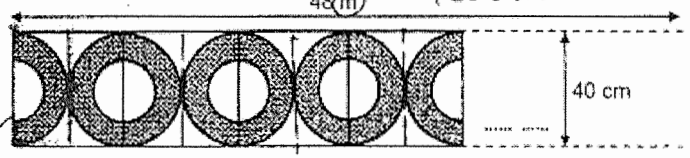


Figure 2

shaded = 942 cm² ÷ 2 = 471 cm²

Rect = 20 × 40

= 800

Unshaded = 800 − 471 = 329

} 1 RECT

20 cm = 1 Rect

4800 cm = 480¢ ÷ 2¢

= 240 (Rect)

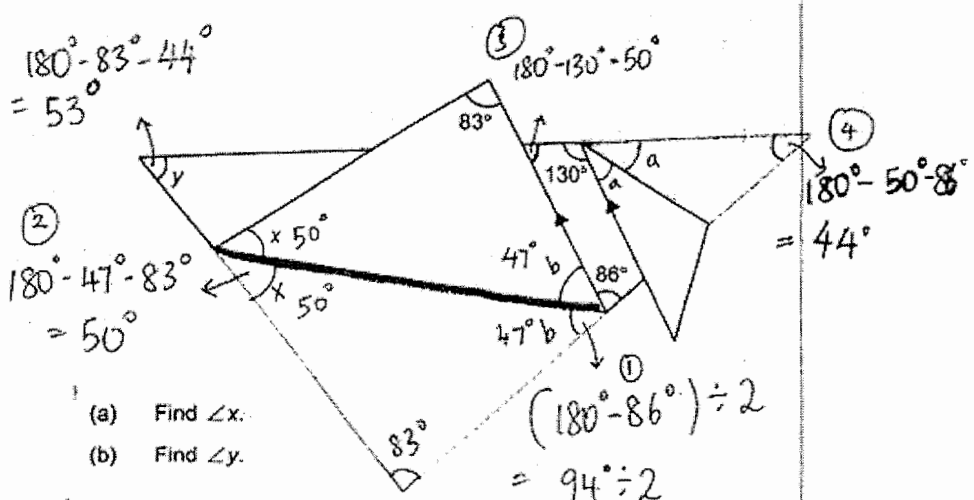
240 × 329 = 78960

Ans: (a) 942 cm² [1]

(b) 78960 cm² [3]

unfold + draw

14 Jane folded two corners of a triangular piece of paper as shown in the figure below.



(a) Find ∠x.

(b) Find ∠y.

Ans: (a) 50° [2]

(b) 53° [3]

Do not write in this space

Qty

15 At a paint shop, there were some identical pails. 60% of the pails were completely filled with paint. 32% of the pails were $\frac{1}{3}$ filled with paint. The remaining 20 pails were empty. The total amount of paint in the pails was 1590 ℓ.

Value

(a) How many pails were completely filled with paint?

(b) What was the amount of paint in one full pail? → complete

	Complete (150 pails)	$\frac{1}{3}$ filled	Empty
Qty (P)	60u	32u	8u → 20 pails
Unit Value	3p	1p	0
Total Value	180up	52up	0

1590 ℓ

8u = 20

1u = $\frac{20}{8}$

60u = $\frac{20}{8} \times \frac{60}{1}$ = 150 (a)

180up + 32up = 212up

212up = 1590

1up = 1590 ÷ 212

= 7.5

180up = 7.5 × 180 = 1350

150 pails = 1350 ℓ

1 pail = 1350 ÷ 150

= 9

Ans: (a) 150 [2]

(b) 9 ℓ [2]

Do not write in this space

16 Roger took part in a shooting game. He had to collect points by shooting gold and silver stars. He scored 8 points for each gold star shot and 3 points for each silver star shot.
At the end of the game, he scored 730 points less from shooting silver stars than gold stars. Roger shot 35 fewer silver stars than gold stars.
How many stars did Roger shoot altogether?

Do not write in this space

unit value

Total value

Qty

1 Gold	1 Silver
☆	☆
8 points	3 points

	Gold	Silver	Total
Qty	1u + 35	1u	2u + 35
Unit Value (points)	8	3	= 2 × 90 + 35
Total Value (points)	8u + 280	3u	= 215 (Ans)

diff = 730

Points

G | 3u | 5u | 280 |
S | 3u |

730

5u = 730 − 280
= 450
1u = 450 ÷ 5
= 90

Ans: 215 [5]

17 Ken had 2 boxes of beads. Box A had 60 more beads than Box B at first. Ken then moved $\frac{4}{5}$ of the beads from Box A to Box B.
Next, he moved $\frac{2}{5}$ of the beads from Box B back into Box A.
Ken then added another 87 beads to Box A. In the end, the number of beads in Box A was twice the number it contained at first.

(a) How many beads from Box B were moved back into Box A?
(b) How many beads were there in Box A in the end?

Do not write in this space

4u + 60 → ×2 → 8u + 120

A	B
1u + 60	1u
4u + 60 − 1u − 15	4u + 1u + 15
3u + 45 + 2u + 6	5u + 15 − 2u − 6
5u + 51 + 87	3u + 9
5u + 138	3u + 9

5u + 138 = 8u + 120
−5u −120 −5u −120
18 = 3u
1u = 6

2u + 6 = 2 × 6 + 6
= 18 (a)

5u + 138 = (5 × 6) + 138
= 168

Ans: (a) 18 [3]
(b) 168 [2]

END OF PAPER
CHECK YOUR WORK CAREFULLY !

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION (2021)

PRIMARY SIX

MATHEMATICS

PAPER 1

(BOOKLET A)

Name : _____( )

Class : Primary 6_____

Date : 20 August 2021

Total time for Booklet A and B : 1 hour

15 questions

20 marks

Parent's signature : _____

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Booklet A and B consist of 13 printed pages excluding the cover pages.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet. All diagrams are not drawn to scale. (20 marks)

---

1. Which digit in 69.78 is in the tenths place?

   (1) 6

   (2) 7

   (3) 8

   (4) 9

---

2. Express 3050 cm in metres.

   (1) 3.5 m

   (2) 3.05 m

   (3) 30.5 m

   (4) 30.05 m

---

3. Mel paid $2.50 for 50 stickers. How much did each sticker cost?

   (1) 5 ¢

   (2) 2 ¢

   (3) 20 ¢

   (4) 50 ¢

---

4. Which of the following is the likely mass of an oral digital thermometer?

   (1) 0.12 g

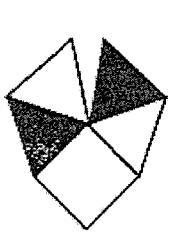
   (2) 1.2 g

   (3) 12 g

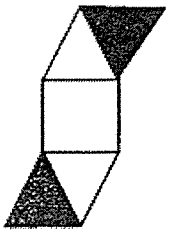
   (4) 120 g

(Go on to the next page)

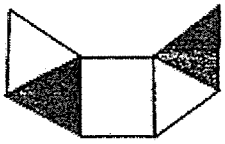
5. Each figure below is made up of 1 square and 4 identical equilateral triangles. 2 of the triangles in each figure are shaded. Which figure has a line of symmetry?



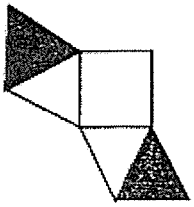
(1)



(2)



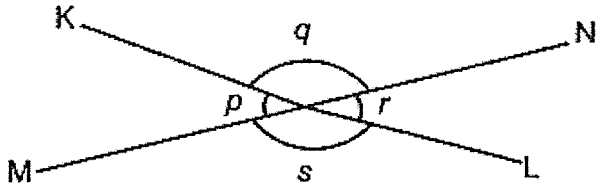
(3)



(4)

---

6. MN is a straight line.



Which of the following is true?

(1) $\angle p = \angle r$

(2) $\angle q = \angle s$

(3) $\angle r + \angle q = 180°$

(4) $\angle p + \angle q = 180°$

---

7. A schedule of an on-line course is as shown. One activity leads to another without any break in between.

Start Time	Activity
2.30 p.m.	Zoom session
3.50 p.m.	Question-and-Answer session
4.25 p.m.	Closure

Mrs Lee was 5 minutes late for the Zoom session. She left 10 minutes before the end of the Question-and-Answer session. How long did Mrs Lee attend the on-line course?

(1) 65 min

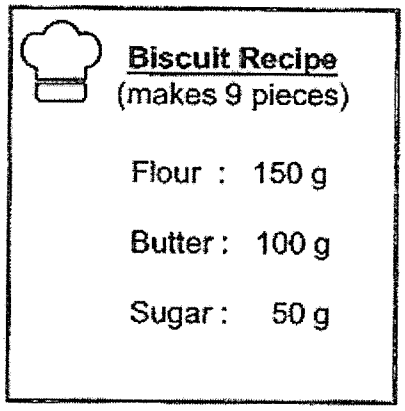
(2) 70 min

(3) 100 min

(4) 105 min

---

8. Fann uses the recipe below to make biscuits.



She has $\frac{1}{2}$ kg of flour, 420 g of butter and 110 g of sugar.
What is the greatest number of pieces of biscuit she can make?

(1) 18

(2) 27

(3) 36

(4) 81

(Go on to the next page)

9. At a school, each pupil chose either Sports or Aesthetics as CCA.
Figure 1 and Figure 2 show the pupils' choice for their CCA.

Figure 1

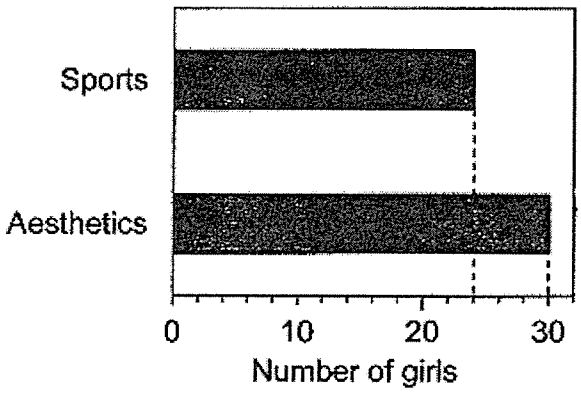
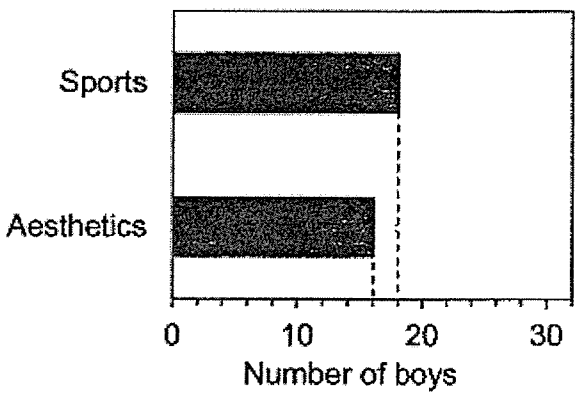


Figure 2



What is the difference in the number of pupils who chose Sports as CCA and the number of pupils who chose Aesthetics as CCA?

(1) 25

(2) 20

(3) 7

(4) 4

---

10. Which of the following fractions is smaller than $\frac{1}{4}$?

(1) $\frac{9}{35}$

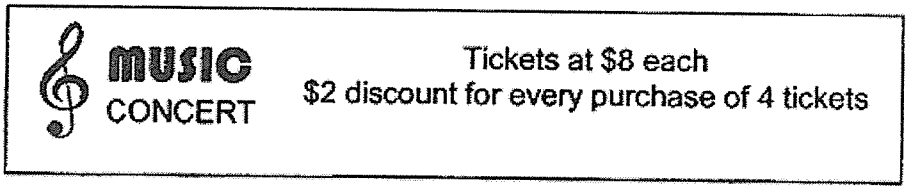
(2) $\frac{7}{29}$

(3) $\frac{6}{24}$

(4) $\frac{4}{15}$

(Go on to the next page)

11.



What is the percentage discount for the purchase of 10 tickets?

(1) 5%

(2) 10%

(3) 20%

(4) 25%

---

12. At a hawker centre, each table has either 3 or 5 chairs around it. The number of tables to the number of chairs is 7 : 25. What is the ratio of the number of tables with 5 chairs to that with 3 chairs?

(1) 5 : 2

(2) 2 : 5

(3) 3 : 4

(4) 4 : 3

---

13. Gabriel rented a board game set and it was overdue when he returned it. The payment for the overdue board game set was based on the charges shown below.

First 7 days	20¢ per day
After the first 7 days	40¢ per day

He paid a total of $3.80. How many days was the board game set overdue?

(1) 6

(2) 9

(3) 13

(4) 16

(Go on to the next page)

14. 25 people were asked to wrap a rice dumpling. The table below shows the number of people with the following times clocked.

Time clocked (s)	40	50	55	60	62	70	82
Number of people	4	2	3	7	3	4	2

The first 6 people who wrapped the rice dumpling the fastest were given a prize each. Daphne won a prize.

Which of the following statement(s) is/are **true**?

A. 9 people needed at least 60 s to wrap a rice dumpling.

B. The slowest time that Daphne could have clocked was 70 s.

C. 36% of the people used less than 1 min to wrap a rice dumpling.

(1) A only

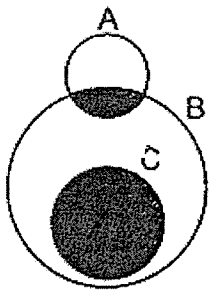
(2) C only

(3) A and B only

(4) B and C only

---

15. Felicia drew three circles, A, B and C, to form a figure. The ratio of the area of circle A to the area of circle B to the area of circle C is 1 : 9 : 4.
$\frac{1}{4}$ of the area of circle A is shaded. What fraction of the figure is shaded?



(1) $\frac{17}{39}$

(2) $\frac{20}{39}$

(3) $\frac{17}{56}$

(4) $\frac{35}{56}$

END OF BOOKLET A

CATHOLIC HIGH SCHOOL
PRELIMINARY EXAMINATION (2021)
PRIMARY SIX
MATHEMATICS
PAPER 1
(BOOKLET B)

Name : _____( )

Class : Primary 6_____

Date : 20 August 2021

Total time for Booklet A and B : 1 hour

15 questions

25 marks

Parent's signature : _____

BOOKLET A	20
BOOKLET B	25
Total Marks	45

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

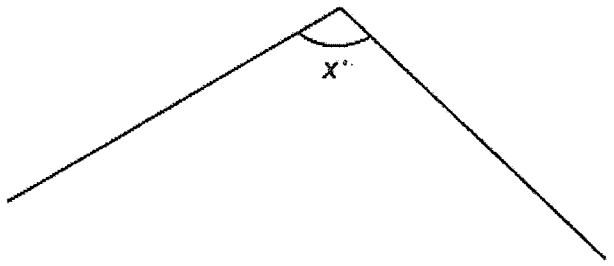
The use of calculators is **NOT** allowed.

Booklet A and B consist of 13 printed pages excluding the cover pages.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (5 marks)

Do not write in this space

16. Measure and write down the size of $\angle x$ in the figure.



Ans: _____°

17. Find the value of $4 \div \frac{3}{5}$.

Give your answer as a mixed number.

Ans: _____

18. Maureen gave the cashier a $50 note to pay for a T-shirt. The cashier did not have any coins as small change, so Maureen gave her another 30 cents and received a $10 note as change. What was the cost of the T-shirt?

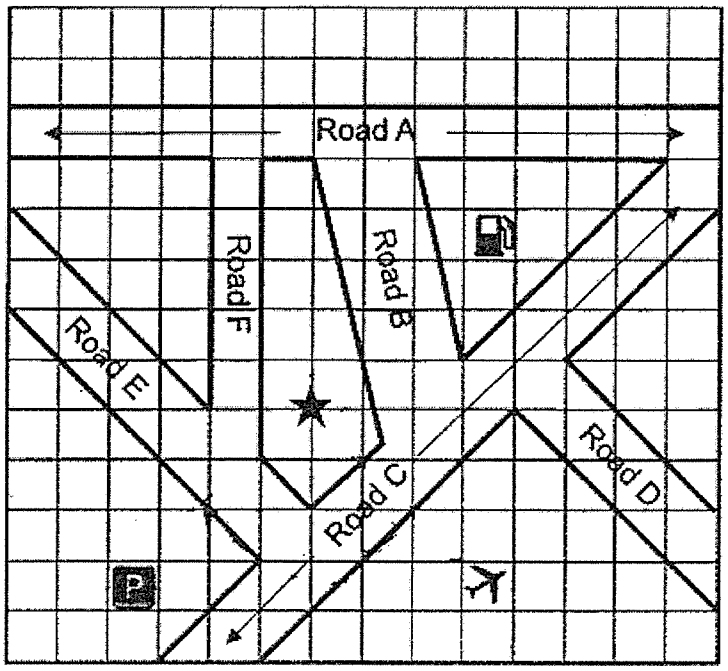
Ans: $_____

(Go on to the next page)

Refer to the figure below to answer questions 19 and 20.

Do not write in this space

Six roads and three landmarks on a map are shown in the square grid. The roads are roads A, B, C, D, E and F. The three landmarks are petrol kiosk, airport, car park.



Landmarks

Petrol Kiosk	Car park	Airport

19. Name the two roads that are parallel to each other.

Ans: _____ and _____

20. Mingfa was at the position marked '★'. After turning 90° anti-clockwise, he faced the airport. Which landmark was he facing before the turn?

Ans: _____

5

Total marks for questions 16 to 20

(Go on to the next page)

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale.

(20 marks)

Do not write in this space

21. Find the value of $2 \div 7$.
Give your answer as a decimal, correct to 1 decimal place.

Ans: _____

22. Use all the digits 8, 0, 9, 2 to form the

(a) smallest multiple of 5.

(b) number closest to 9000.

Ans: (a) _____

(b) _____

(Go on to the next page)

23. Some books were shared equally among 40 children at first. When 10 of them gave up their share of the books, the rest received 2 extra books each. How many books did each child get at first?

Do not write in this space

Ans: _____

24. Darryl baked some cookies. He sold $\frac{3}{4}$ of the cookies at a fund raising event and ate $\frac{1}{6}$ of the remaining cookies. He was left with 35 cookies. How many cookies did he bake?

Ans: _____

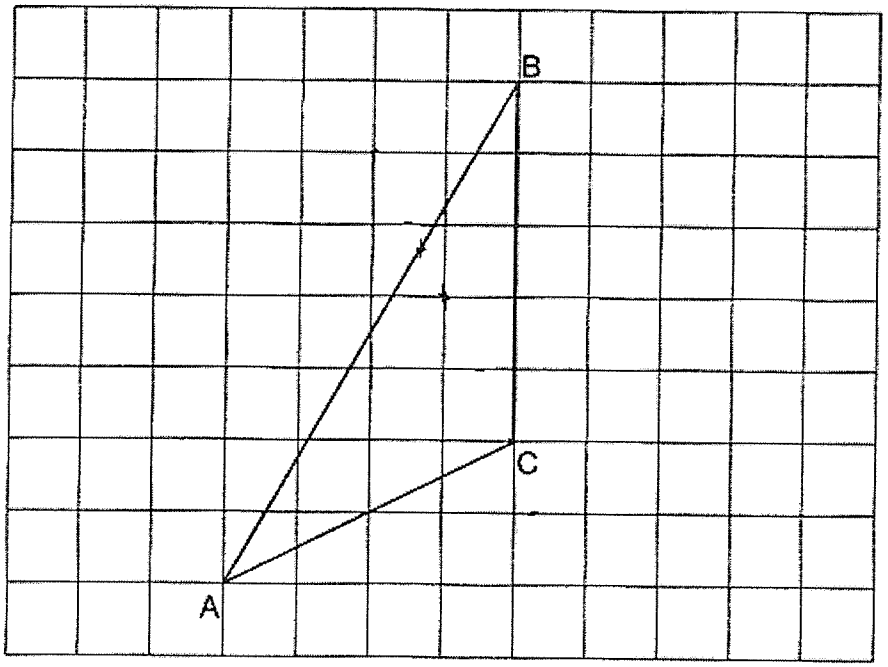
(Go on to the next page)

Do not write in this space

25. In the square grid below, ABC is a triangle.

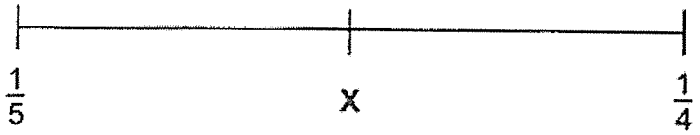
(a) Measure the side AB of the triangle and write down its length to the nearest cm.

(b) Draw the corresponding height of the triangle with the side AC as its base.



Ans: _____cm

26. The number line below is marked at equal intervals.
What is the value of X? Give your answer as a fraction in its simplest form.



Ans: _____

(Go on to the next page)

27. Kenneth deposits $8200 in a bank for one year. The interest rate is 2% per year. What is the total amount of money he will have in the bank at the end of one year?

Do not write in this space

Ans: $_____

28. White squares and black squares are used to form figures that follow a pattern. The first three figures are shown below.

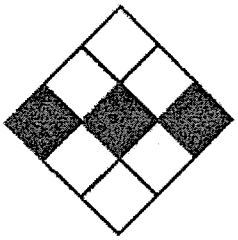


Figure 1

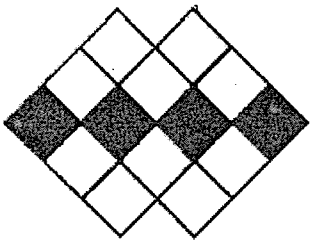


Figure 2

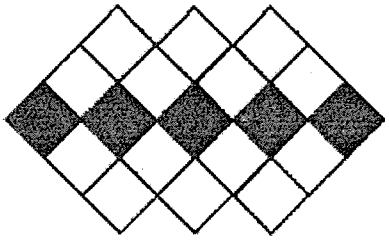


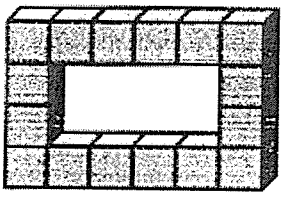
Figure 3

How many white squares are used to form Figure 20?

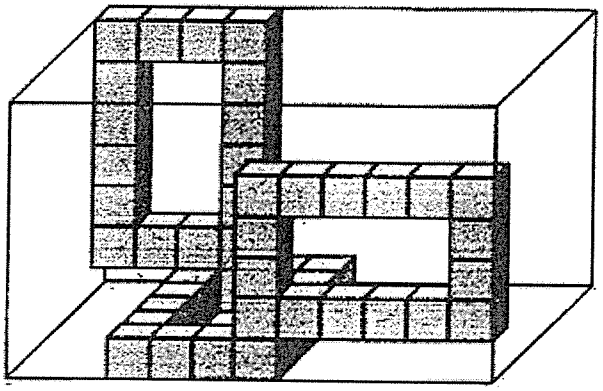
Ans: _____

29. Kai glues sixteen 1-cm cubes to form the solid shown.

Do not write in this space



He puts three such solids into an empty rectangular glass box as shown. What is the capacity of the glass box?



Ans: _____ cm^3

30. Owen bought some pears, apples and oranges. The ratio of the number of pears to the number of apples was 8 : 11. There were 36 more oranges than pears and 12 more oranges than apples. How many apples did Owen buy?

Ans: _____

Total marks for questions 21 to 30

END OF BOOKLET B
END OF PAPER 1

20

CATHOLIC HIGH SCHOOL

PRELIMINARY EXAMINATION (2021)

PRIMARY SIX

MATHEMATICS

PAPER 2

Name : _____( )

Class : Primary 6_____

Date : 20 August 2021

Total time : 1 h 30 min

17 questions

55 marks

Parent's signature : _____

PAPER 1 BOOKLET A	20
PAPER 1 BOOKLET B	25
PAPER 2	55
Total Marks	100

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

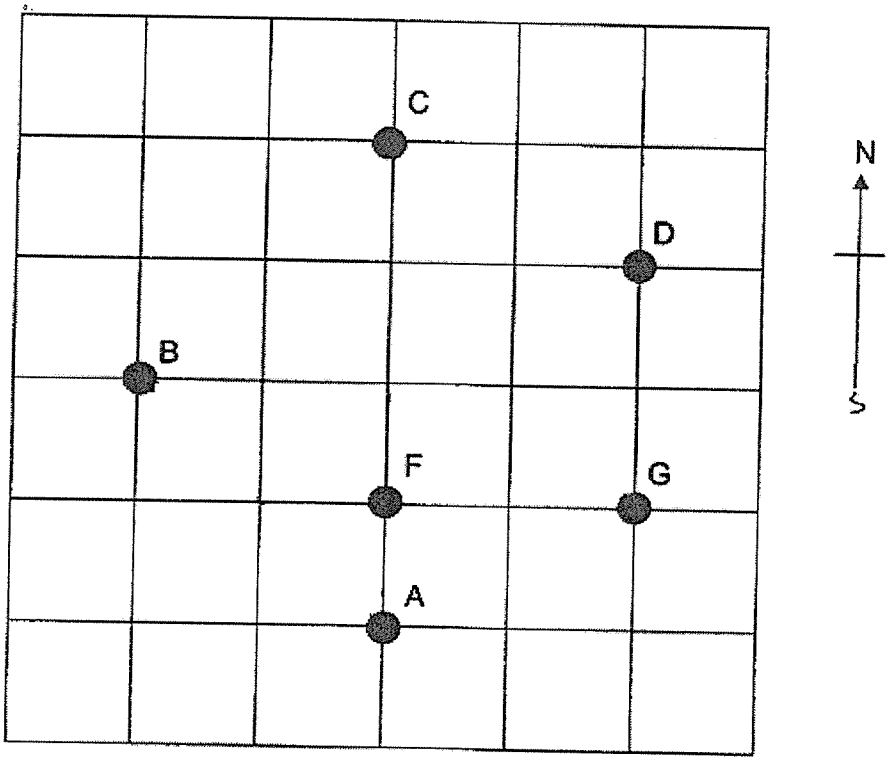
The use of an approved calculator is expected, where appropriate.

This booklet consists of 16 printed pages excluding the cover pages.

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)

Do not write in this space

1. The square grid shows the position of points A, B, C, D, F and G.



In the square grid,

(a) point _____ is east of point _____.

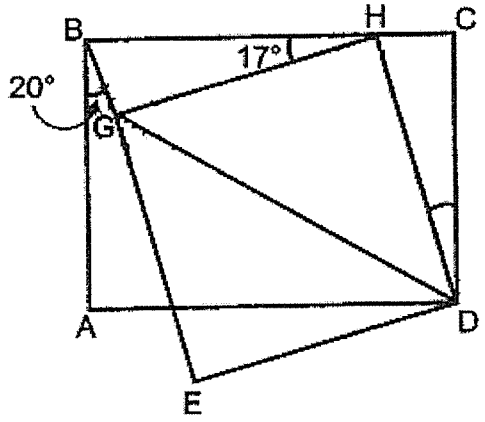
(b) point _____ is north-west of point _____.

2. The total cost of 2 pens and a book is \$55. The cost of a pen is $\frac{2}{7}$ of the cost of a book. What is the cost of a book?

Do not write in this space

Ans: \$_____

3. In the figure, ABCD is a rectangle. DEGH is a square. Point H lies on the line BC. $\angle ABG = 20°$ and $\angle BHG = 17°$.



Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
$\angle EGD = 45°$			
BHDG is a trapezium.			
$\angle BHG = \angle CDH$			

4. During a promotion, a shop gave 6 free stickers for every 50 stickers bought. Don bought some stickers and got 210 stickers altogether. How many stickers would Don get for the same amount paid without the promotion?

Do not write in this space

Ans: _____

5. The total volume of grape juice in barrel A and barrel B is 7.4 ℓ. The total volume of grape juice in barrel B and barrel C is 9.7 ℓ. The volume of grape juice in barrel C is twice the volume of grape juice in barrel A. What is the average volume of grape juice in the three barrels?

Ans: _____ ℓ

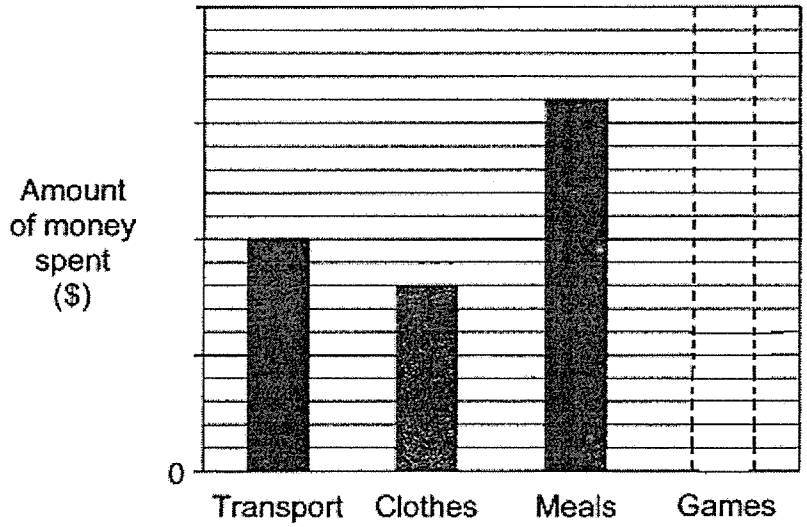
For questions **6** to **17**, show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.
(45 marks)

Do not write in this space

6. Wendy had a sum of money which she spent on transport, clothes, meals and games. The table shows the percentage of the money spent on each item.

Items	**Percentage of money spent**
Transport	25%
Clothes	20%
Meals	40%
Games	15%

This is also represented by a bar graph but the amount of money spent for each item is not shown on the scale. The bar for the amount of money spent on games is also not drawn.



[2]

(a) What was the ratio of the amount of money spent on transport to the amount of money spent on clothes to the amount of money spent on meals? Give your answer in the simplest form.

(b) Draw the bar that represents the amount of money Wendy spent on games.

Ans: (a) _____ [1]

7. Jack has $\$y$ for pocket money. Krishnan has thrice as much pocket money as Jack. Latiff has \$10 less than Krishnan.

Do not write in this space

(a) What is the total amount of pocket money the three boys have in terms of y?

(b) The sum of Latiff's pocket money and Jack's pocket money is \$50. What is the value of y?

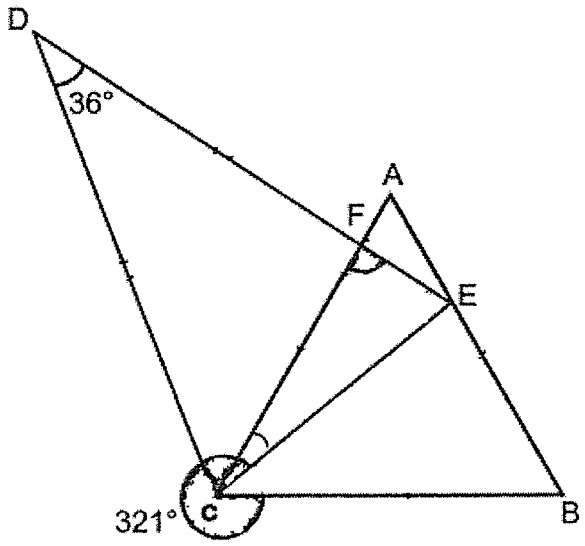
Ans: (a) _____ [1]

(b) _____ [2]

8. In the figure below, ABC is an equilateral triangle and CDE is an isosceles triangle with DC = DE. Point E lies on the side AB of the equilateral triangle. $\angle CDE = 36°$ and $\angle ECB = 321°$.

Do not write in this space

Find $\angle EFC$.

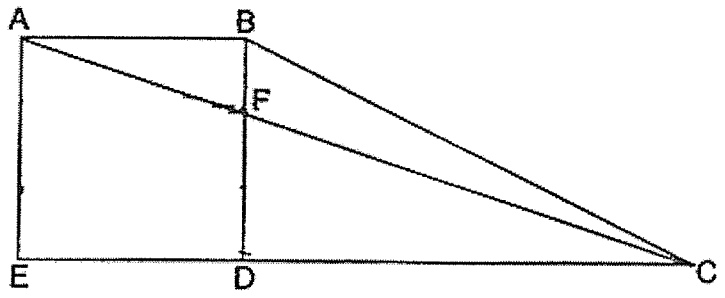


Ans: _____ [3]

9. The figure shows a square ABDE and a right-angled triangle BCD. AFC is a straight line. DC is twice the length of ED. The area of triangle ABF is $\frac{1}{6}$ the area of the square. The area of triangle BCF is 48 cm^2.

What is the length of each side of square ABDE?

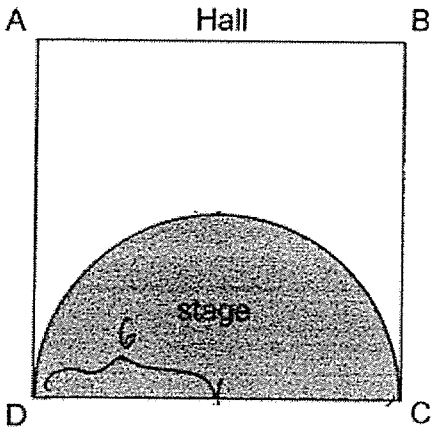
Do not write in this space



Ans: _____ [3]

10. A square hall ABCD is fitted with a semi-circle stage as shown. The shaded stage has the side DC of the hall as its diameter and a perimeter of 40 m. The perimeter of the unshaded part of the hall is 64 m What is the area of the shaded stage in terms of π?

Do not write in this space



Ans: _____ [3]

11. A box contained apples and pears. $\frac{4}{5}$ of the fruits were apples and the rest were pears. After $\frac{3}{4}$ of the fruits were removed, there were $\frac{1}{8}$ of the apples and 30 pears left. How many fruits were there in the box at first?

Do not write in this space

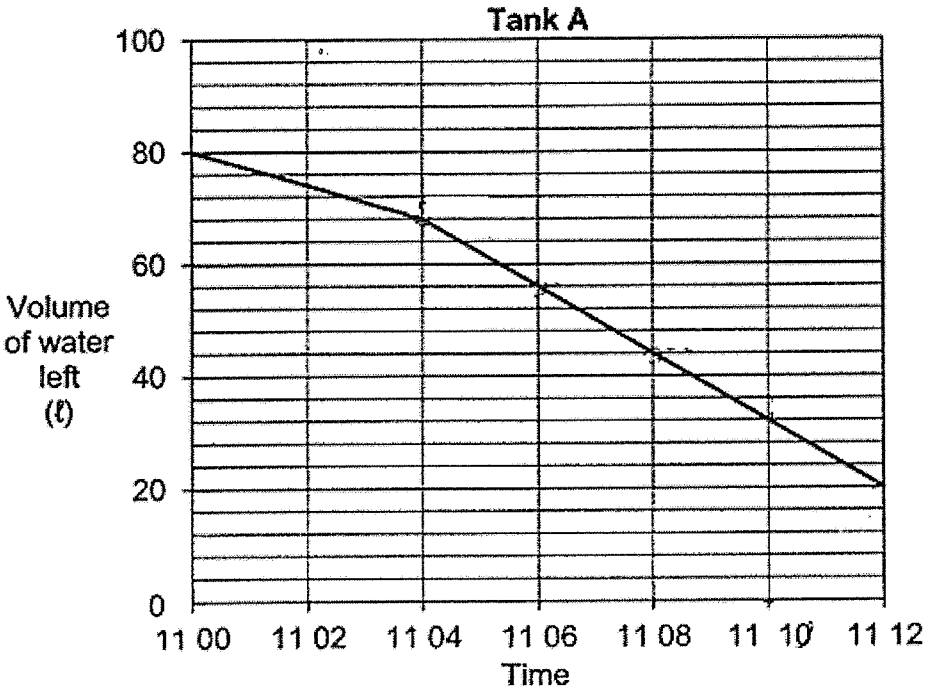
Ans: _____ [4]

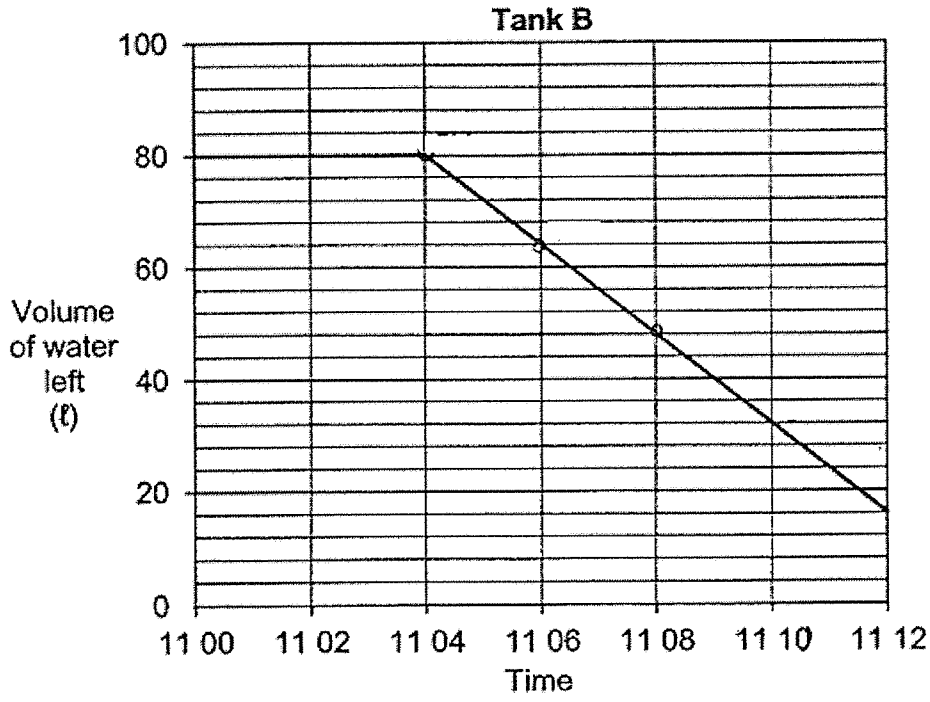
(Go on to the next page)

12. Cayden drained water from Tank A and Tank B using Tap A and Tap B respectively. For Tank A, he turned on Tap A partially at 11 00 and then fully 4 minutes later. For Tank B, he turned on Tap B fully at 11 04. He left both taps on until water was completely drained from each tank.

Do not write in this space

The graphs below show the volume of water left in each tank for the period from 11 00 to 11 12.





(Go on to the next page)

(a) At what time was the volume of water left the same in both the tanks?

(b) Starting from 11 04, which tank, A or B, had a slower rate of drainage? How much water was drained from this tank?

(c) How many minutes did it take for Tank B be completely drained of water after Tap B was turned on?

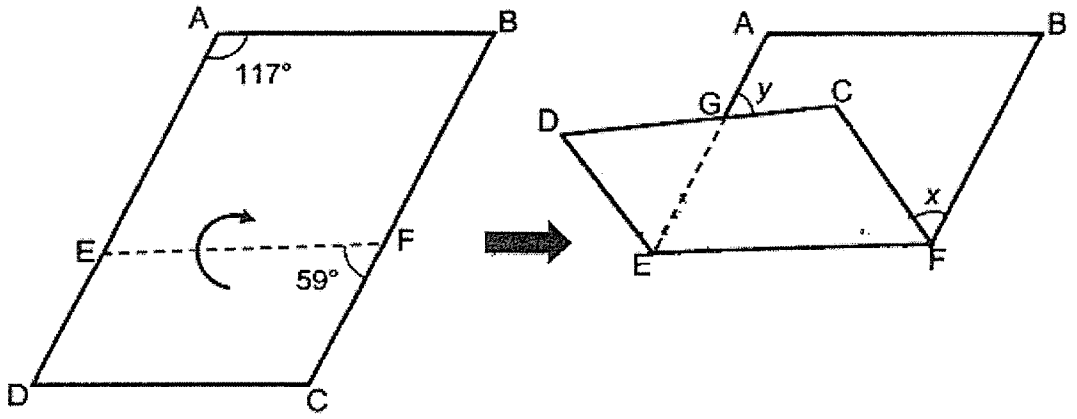
Ans: (a)_____ [1]

(b) Tank_____ [2]

(c) _____ [1]

13. Jeremy had a piece of paper ABCD in the shape of a parallelogram. He folded it along the line EF as shown below.

Do not write in this space



Before folding

After folding

(a) Find $\angle x$.

(b) Find $\angle y$.

Ans: (a) _____ [1]

(b) _____ [3]

14. Mrs Lim prepared 160 chicken wings and some nuggets for a party. At one point during the party, an equal number of chicken wings and nuggets were eaten. 25% of the chicken wings and 20% of the nuggets were left. She then increased the number of chicken wings. After that, there was a total of 65 chicken wings.

Do not write in this space

(a) How many nuggets did Mrs Lim prepare for the party?

(b) What was the percentage increase in the number of chicken wings after the same number of chicken wings and nuggets were eaten?

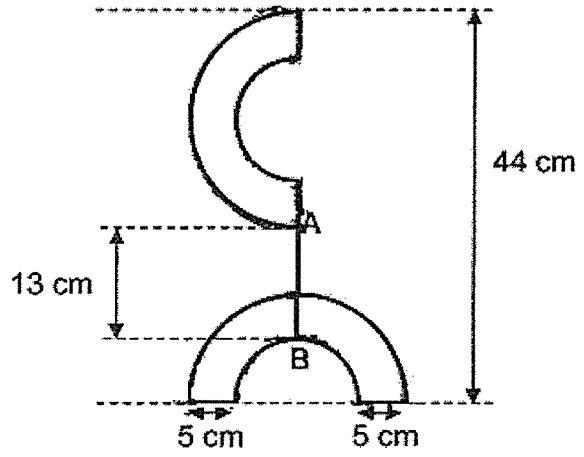
Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

15. Benson uses some wire to make the figure as shown. He made 2 identical wire structures and joined them with a piece of wire AB. Each wire structure was formed by a large semi-circle, a small semi-circle and 2 straight lines.

Do not write in this space



(a) What is the radius of a small semi-circle?

(b) Find the length of wire used to make the figure.
Take $\pi = 3.14$

Ans: (a) _____ [2]

(b) _____ [2]

16. Cathy and David each had a piece of dough of the same mass at first. Cathy divided her dough into equal parts of mass 90 g and for each part, she used it to bake 2 star-shaped cookies. David also divided his dough into equal parts of mass 150 g and for each part he used it to bake 6 heart-shaped cookies. There were 72 more heart-shaped cookies than star-shaped cookies in the end.

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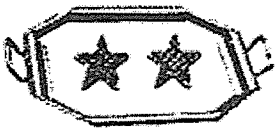
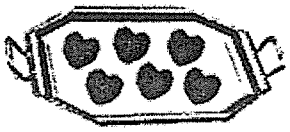




(a) How many cookies did Cathy and David bake altogether?

(b) David packed his cookies into 22 boxes. Some boxes contained 5 cookies while the rest contained 9 cookies. How many boxes contained 9 cookies?

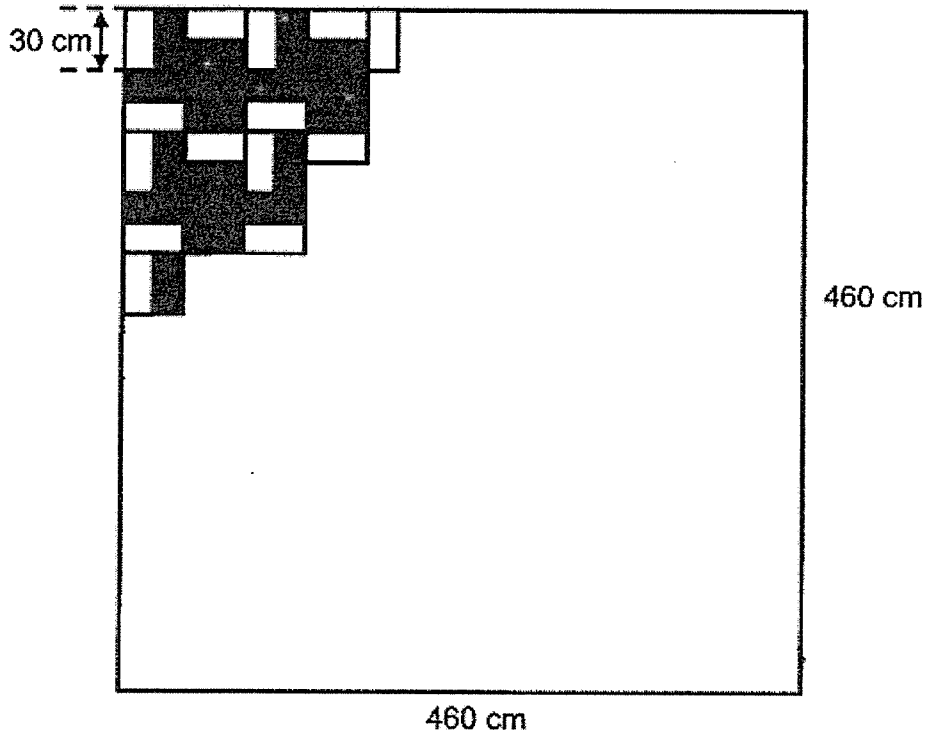
Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

17. Mr Lee tries to cover a square floor with as many rectangular tiles of the same size as possible that follow a pattern as shown. The tiles are either white or grey.

Do not write in this space



(a) What is the greatest possible number of tiles that Mr Lee can use to cover the floor?

(b) Of the greatest possible number of tiles that Mr Lee can use to cover the floor, how many of the tiles are grey tiles?

Ans: (a) _____ [2]

(b) _____ [2]

END OF PAPER 2

SCHOOL : CATHOLIC HIGH PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2020 PRELIM

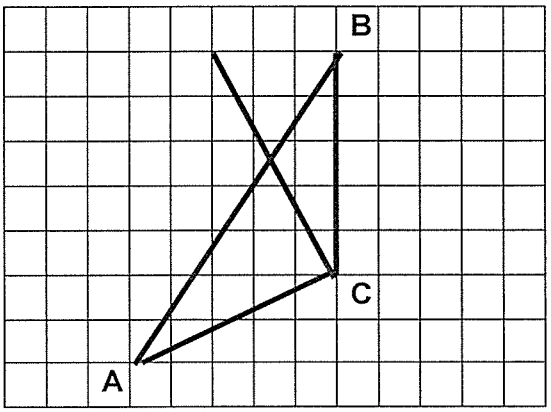
PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	3	1	3	4	4	3	1	4	2

Q 11	Q12	Q13	Q14	Q15
1	2	3	2	1

PAPER 1 BOOKLET B

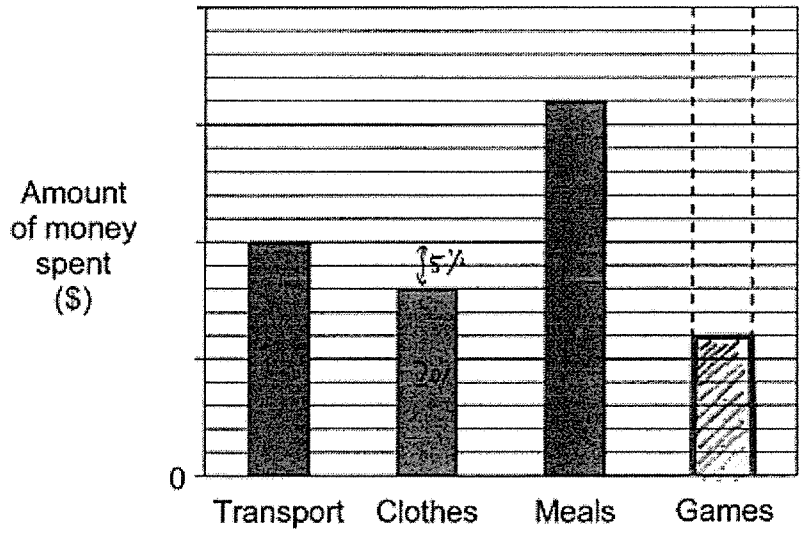
Q16)	107°
Q17)	$6\frac{2}{3}$
Q18)	50 + 0.30 = 50.30 50.30 – 10 = $40.30
Q19)	E and D
Q20)	Car Park
Q21)	0.3
Q22)	a)2890 b)9028
Q23)	40 – 10 = 30 30 x 2 = 60 10 children received 60 book in total 1 child received = 60 ÷ 10 = 6 books

Q24)	5u = 35 1u = 35 ÷ 5 = 7 24u = 7 x 24 = 168 cookies
Q25)	
Q26)	(5 – 4) ÷ 2 = 0.5 4 + 0.5 = 4.5 $\frac{4.5}{20} = \frac{9}{40}$
Q27)	$\frac{102}{100}$ x \$8000 = 102 x \$82 = \$8364
Q28)	82 white squares
Q29)	11cm x 7cm x 6cm = 11cm x 42cm2 = 462cm3
Q30)	Orange = 8u + 36 = 11u + 12 8u + 36 = 11u + 12 36 – 12 = 11u – 8u 3u = 24 1u = 24 ÷ 3 = 8 11u = 8 x 11 = 88 apples

PAPER 2

Q1)	a)point G is east of point F b)point B is north-west of point A

Q2)	2pens + 1 book = $55 1 pen = $\frac{2}{7}$ book 2 pens = 2u x 2 = 4u 4u + 7u = 11u 11u = 55 1u = 55 ÷ 11 = 5 7u = 5 x 7 = $35
Q3)	<table><tr><td>√</td><td></td><td></td></tr><tr><td></td><td>√</td><td></td></tr><tr><td>√</td><td></td><td></td></tr></table>
Q4)	1set = 50 +6 = 56 stickers No.of stes = 210 ÷ 56 = 3 R 42 No.of stickers (free) = 3 x 6 = 18 Amt of stickers paid for = 210 – 18 = 192 stickers
Q5)	A + B = 7.4 B + C = 9.7 2A = C B + C = 2A + B 2A + B = 9.7 A = 9.7 – 7.4 = 2.3 B = 7.4 - 2.3 = 5.1 C = 2.3 x 2 = 4.6 $\frac{2.3+5.1+4.6}{3} = \frac{12}{3} = 4\ell$
Q6)	a) T : C : M 25 : 20 : 40 5 : 4 : 8 b)

	
Q7)	a)Amt Jack has = $y Amt Krishan has = $(Yx3) = $3y) Amt Latiff has = $(3y – 10) Total Amt = $(y+3y+3y – 10) = $(7y – 10) b)Jack + Latiff = $(y+3y – 10) = $(4y – 10) $(4y – 10) = $50 $4y = $50 + $10 = $60 Y = $60 ÷ $4 = 15
Q8)	∠ ECB = 360° – 321° = 39° ∠FCE = 60° – 39° = 21° ∠DEC = (180° – 36°) ÷ 2 = 72° ∠EFC = 180° – 72° – 21° = 87°
Q9)	6u x 2u x 0.5 = 1p Area of triangle ABF = 6u x 2u x 0.5 = 12(u^2) ÷ 2 = 6(u^2) 1p = 6(u^2) Area of triangle BCF = 2u x 12u x 0.5 = 48 2u x 120 x 0.5 = 24(u^2) x 0.5 = 12(u^2) 12(u^2) = 48 U^2 = 48 ÷ 12 = 4 U = √4 = 2 6u = 2 x 6 = 12 12cm

Q10)	1u = 24 ÷ 2 =12 Area of shaded stage = π x 6^2 ÷ 2 = 36 π ÷ 2 = 18 π (18 π)m^2
Q11)	A : P : T 16 : 4 : 20 $\frac{3}{4}$ of 200 = 150 200- 150 = 50 (5u) fruits left (Apples left) = $\frac{1}{8}$ of 160 = 2u 5u = 2u+30 5u – 2u = 30 1u = 10 Amount of fruits in box at first = 200
Q12)	a) 11 10 b) A , 6 I c) 10 minutes
Q13)	a) $\angle x = 180° - 59° - 59° = 62°$ b) $360° - 63° - 117° - 59° = 121°$ $\angle GEF = 180° - 121° = 59°$ $\angle CGE = 360° - 117° - 59° - 59° = 125°$ $\angle y = 180° - 125° = 55°$
Q14)	a) $\frac{12}{16}cw = \frac{12}{15}N$ 16u = 160 1u = 10 15u = 150 nuggets b) $\frac{1}{4}$ of 160 = 40 65 – 40 =25 $\frac{25}{100} \; x \; 100\% = 62.5\%$
Q15)	a) 13 – 5 = 8 44 – 8 – 5 – 5 – 5 = 21 Radius of small semi circle = 21 ÷ 3 = 7cm b) Radius of big semi circle = $\frac{(44-8)}{3}$ = 12 3.14 x 12 x 2 = 75.36 3.14 x 7 x 2 = 42.96 75.36 + 42.96 + 5 + 5 +5 + 5 + 13 = 152.43cm

Q16)	a) David = 150p 90u = 150p Cathy baked = 20 David baked = 6p 6p – 2u = 72 2u = 6p – 72 90u = 150p 90u = 270p – 3240 150p = 270p – 3240 3240 = 270p – 150p 120p = 3240 1p = 27 150p = 4050 90u = 4050 U= 45 2u= 90 6p = 27 x 6 = 162 90+162 = 252 b) 22 x 5 = 110 162 – 110 = 52 9 – 5 = 4 52 ÷ 4 = 43
Q17)	a) 30 ÷ 2 = 15 460 ÷ 30 = 15R10 15 x 2 = 30 30 x 15 = 450 b) 450 ÷ 30 = 15 15 – 1 = 14 14 ÷ 2 = 7 (7x1) + (7x2) + 1 = 22 (7 x 22) + (7 x 15) + 15 = 274

HENRY PARK PRIMARY SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET A)

Name: _____ ( ) Parent's Signature

Class: Primary 6_____ _____

Marks:

Paper 1	Booklet A	20
	Booklet B	25
Paper 2		55
Total		100

Total Time for Booklets A and B: 1 hour

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.
You are **not** allowed to use a calculator.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4) and shade your answer in the Optical Answer Sheet.

(20 marks)

---

1 Round 21.356 to the nearest tenth.

(1) 20.0

(2) 21.0

(3) 21.3

(4) 21.4

2 Find the value of $6 + 12 \div 3 \times 2$

(1) 12

(2) 14

(3) 3

(4) 20

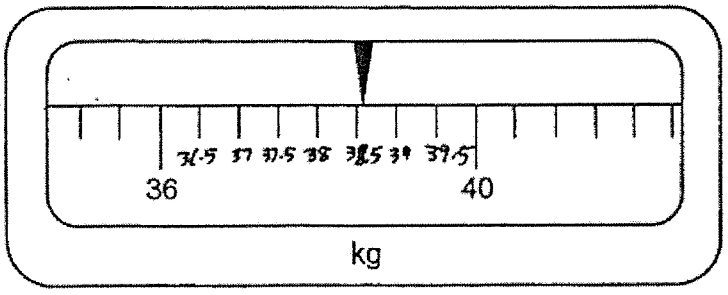
3 Which one of the following is closest to the reading shown on the weighing scale below?

(1) 36.6 kg

(2) 38.1 kg

(3) 38.6 kg

(4) 39.4 kg



(Go on to the next page)

4 Express 25 seconds as a fraction of 2 minutes.

(1) $\frac{1}{8}$

(2) $\frac{2}{25}$

(3) $\frac{5}{12}$

(4) $\frac{5}{24}$

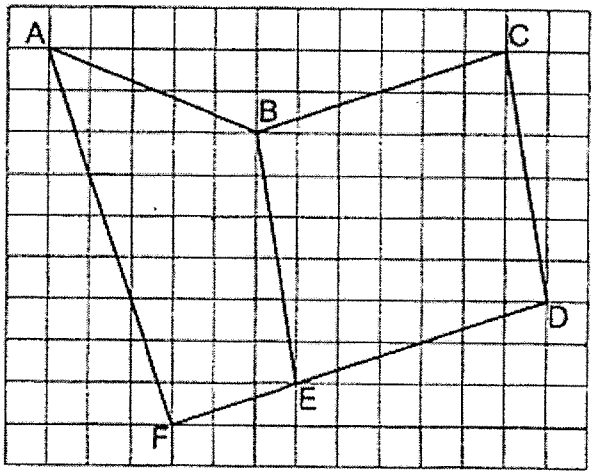
5 Which two lines are perpendicular to each other?

(1) BE and CD

(2) FA and FD

(3) FD and BE

(4) FD and FE



6 Ravi has $\frac{3}{4}$ as many stamps as Peter. Find the ratio of the number of stamps Peter has to the total number of stamps the two boys have.

(1) 3 : 4

(2) 3 : 7

(3) 4 : 3

(4) 4 : 7

(Go on to the next page)

7 Ken cycled along a track from 5.30 p.m. to 6.50 p.m. Lee cycled along the same track from 5.40 p.m. to 7.20 p.m. How much longer did Lee cycle than Ken?

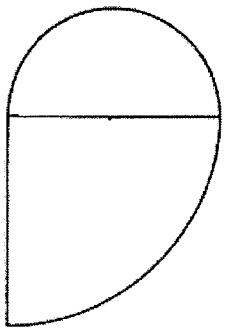
(1) 10 min

(2) 20 min

(3) 30 min

(4) 40 min

8 The figure is made up of a quarter circle of radius 8 cm and a semicircle. Find the area of the semicircle.



(1) 32π cm^2

(2) 16π cm^2

(3) 8π cm^2

(4) 4π cm^2

9 Arrange the following distances from the longest to the shortest.

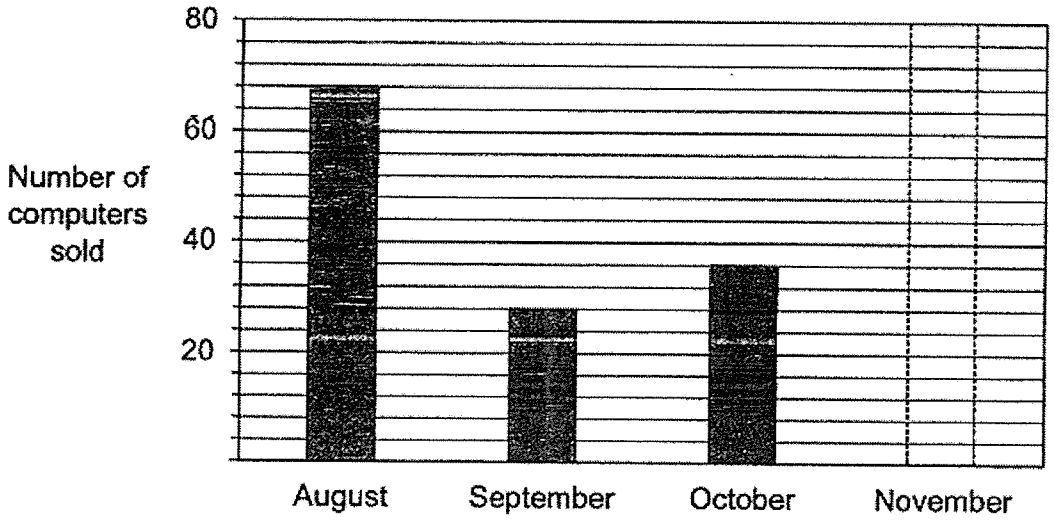
9.45 km	9 km 95 m	$9\frac{3}{5}$ km

	Longest		Shortest
(1)	$9\frac{3}{5}$ km,	9.45 km,	9 km 95 m
(2)	$9\frac{3}{5}$ km,	9 km 95 m,	9.45 km
(3)	9.45 km,	$9\frac{3}{5}$ km,	9 km 95 m
(4)	9 km 95 m,	9.45 km,	$9\frac{3}{5}$ km

(Go on to the next page)

Use the information below to answer Questions **10** *and* **11**.

The bar graph below shows the number of computers sold in each month from August to November. The bar for the number of computers sold in November has not been drawn.



10 How many computers did the shop sell altogether in August and September?

(1) 80

(2) 84

(3) 90

(4) 96

11 The number of computers sold in November was a 25% increase from the number of computers sold in October. How many computers were sold in November?

(1) 9

(2) 27

(3) 45

(4) 63

(Go on to the next page)

12 At first, there were 60 red apples and 40 green apples in a basket. Mrs Lim then sold 10% of the red apples and 25% of the green apples. What percentage of the apples in the basket did she have left?

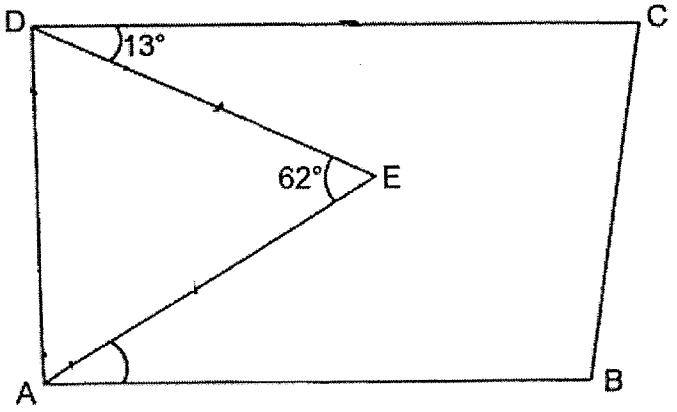
(1) 16%

(2) 35%

(3) 65%

(4) 84%

13 In the figure below, ABCD is a trapezium where CD is parallel to AB.
Given that AE = DE, find ∠EAB.



(1) 31°

(2) 49°

(3) 59°

(4) 72°

14 At first, Alex and Melissa were facing the same direction. Then, Melissa turned 225° anti-clockwise to face East and Alex turned 90° clockwise. Which direction did Alex face in the end?

(1) North-East

(2) North-West

(3) South-East

(4) South-West

(Go on to the next page)

15 Maliki cut a square piece of paper measuring 12 cm in length into 2 pieces of squares and 2 pieces of rectangles as shown in Figure 1. He arranged the pieces to form a big rectangle as shown in Figure 2.
What is the perimeter of the big rectangle in Figure 2?

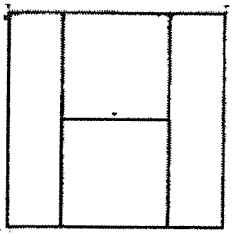


Figure 1

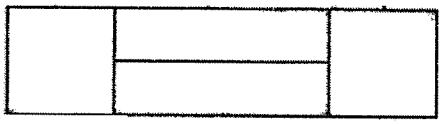


Figure 2

(1) 48 cm

(2) 60 cm

(3) 108 cm

(4) 144 cm

(Go on to BOOKLET B)

HENRY PARK PRIMARY SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 1
(BOOKLET B)

Name: _____ ( )

Class: Primary 6_____

25

Total Time for Booklets A and B: 1 hour

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

You are **not** allowed to use a calculator.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(5 marks)

Do not write in this space

16 Jane has five 50-cent coins, three 20-cent coins and seven 5-cent coins. What is the total value of all the coins that Jane has?

Ans: $ _____

17 Find the value of $24 \div \frac{2}{3}$

Ans: _____

18 Express 0.019 as a percentage.

Ans: _____ %

(Go on to the next page)

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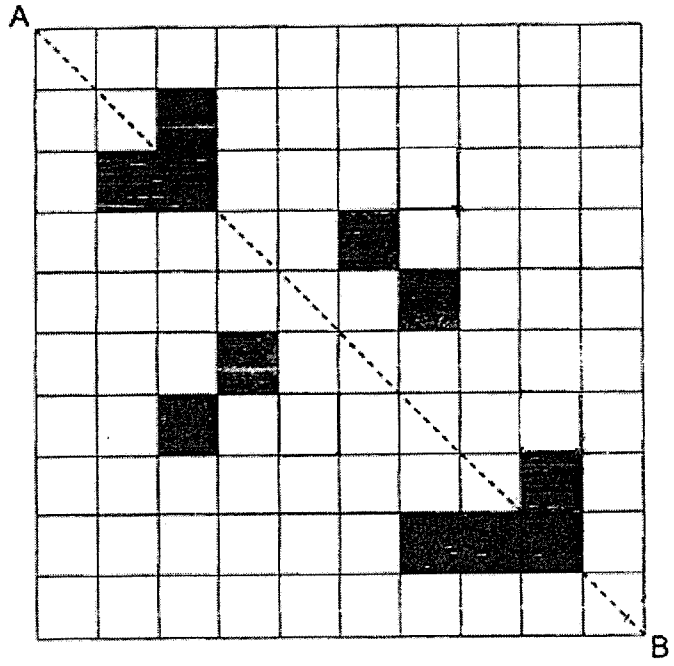
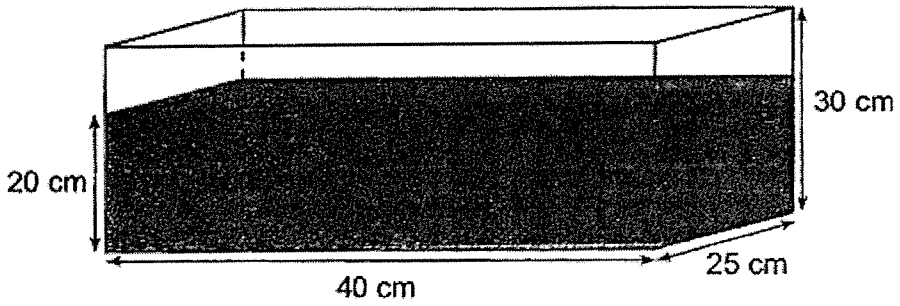
19 Shade 3 more squares to form a symmetric figure with AB as the line of symmetry.



20 A rectangular tank contains water to a height of 20 cm as shown below. How much water (in ml) is needed to fill it to the brim?



Ans: _____ ml

(Go on to the next page)

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

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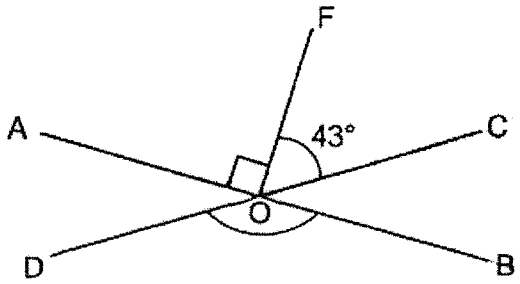
21 In the figure below, AOB and DOC are straight lines, FO is perpendicular to AB and $\angle FOC = 43°$. Find $\angle DOB$.



Ans: _____ °

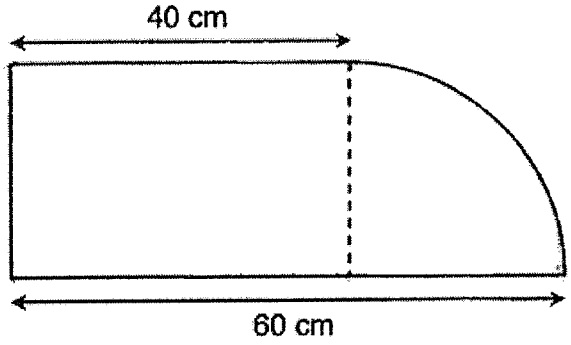
22 A photocopier can print 60 copies in 20 seconds. At this rate, how long will it take the photocopier to print 225 copies?

Ans: _____ s

(Go on to the next page)

23 The figure is made up of a rectangle and a quarter circle. Find the perimeter of the figure.
(Take $\pi = 3.14$)

Do not write in this space



Ans: _____ cm

24 Max is 4 years older than Sue. In 8 years' time, Max will be 22 years old. What is the ratio of Sue's age to Max's age now? Express your answer in the simplest form.

Ans: _____

(Go on to the next page)

25 Joshua had a piece of wire measuring $14k$ cm in length. He used it to form an equilateral triangle and had 4 cm of wire left.

Do not write in this space

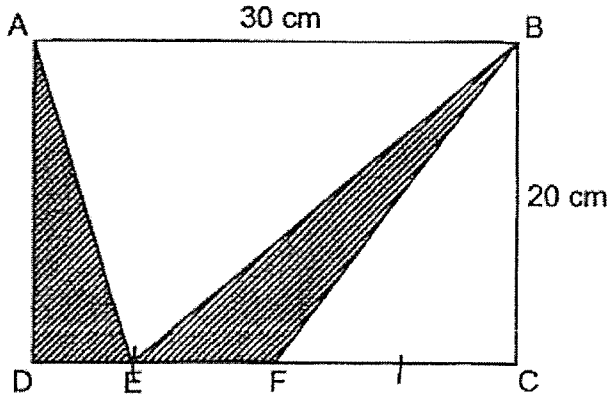
(a) Find the length of each side of the equilateral triangle in terms of k in the simplest form.

(b) Find the perimeter of the equilateral triangle given that $k = 8$

Ans: (a) _____ cm

(b) _____ cm

26 In the figure below, ABCD is a rectangle measuring 30 cm by 20 cm. E is a point on DC and DF = FC. Find the total area of the shaded parts.

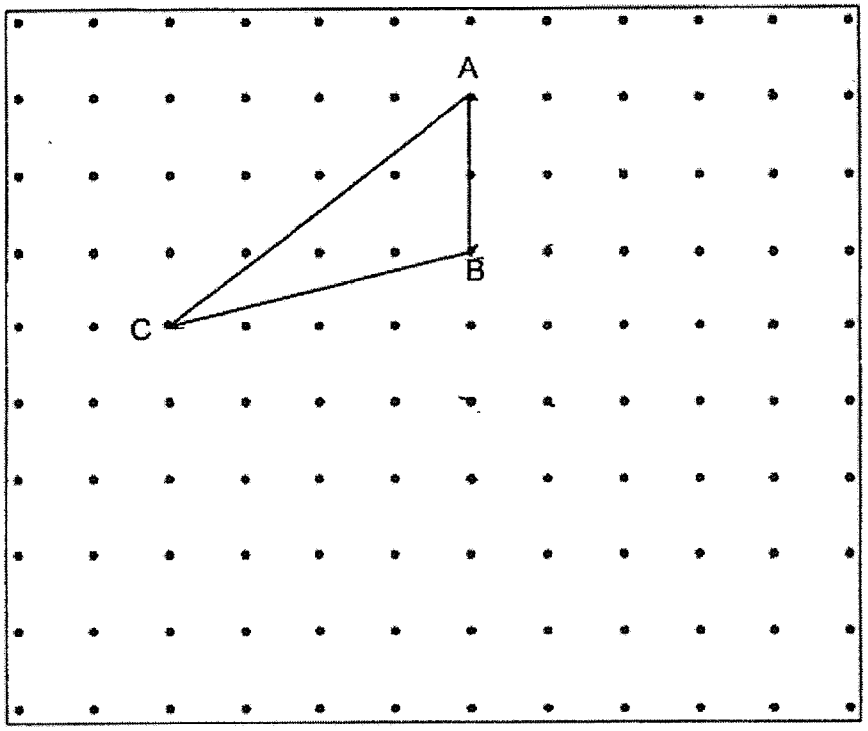


Ans: _____ cm^2

(Go on to the next page)

Do not write in this space

27 A triangle ABC is drawn on a square grid inside a box.



By joining dots on the grid with straight lines,

(a) draw another triangle ABX such that the area of triangle ABX is half the area of triangle ABC.

(b) draw a rhombus BCYZ such that ∠BCY is less than 90°. Rhombus BCYZ must not overlap with triangle ABC.

28 Ali made $\frac{4}{5}$ litres of bandung drink using $\frac{1}{4}$ litres of rose syrup and some milk. What fraction of the bandung drink was made up of rose syrup?

Ans: _____

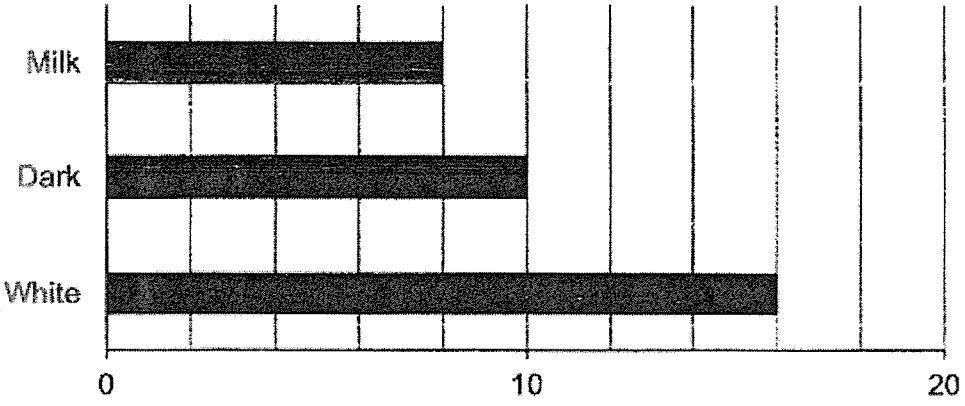
(Go on to the next page)

29 Chocolates are sold at the prices shown below.

Do not write in this space

Type of chocolate	Price per packet of chocolates
Dark	$2.50
White	$2.00
Milk	$1.20

The bar graph shows the number of packets of each type of chocolate that Noah bought.



Find the total amount of money that Noah spent on the chocolates.

Ans: $_____

(Go on to the next page)

30 At first, chairs in a hall were arranged in rows of 12. Then, 57 more chairs were brought in and all the chairs were rearranged into rows of 21. In the end, there were 5 fewer rows. How many rows of chairs were there in the hall in the end?

Do not write in this space

Ans: _____

HENRY PARK PRIMARY SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6

PAPER 2

Parent's Signature

_____

Name: _____ ( )

Class: Primary 6_____

/ 55

Time for Paper 2: 1 hour 30 minutes

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Show your working clearly as marks are awarded for correct working.

Write your answers in this booklet.

You are allowed to use a calculator.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

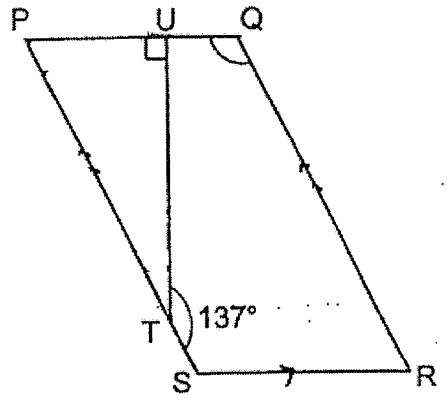
(10 marks)

Do not write in this space

1 A bag of 6 pears cost \$3*w*. Damon bought 54 pears and had \$42 left. Given that he had \$150 at first, find the value of *w*.

Ans: _____

2 The figure shows a parallelogram PQRS and a right-angled triangle PUT. Given that PUQ and PTS are straight lines and ∠STU = 137°, find ∠PQR.



Ans: _____ °

(Go on to the next page)

3 The table below shows the charges for using the facilities in a gym.

Do not write in this space

Duration	Charges
1st hour	\$8.00
Every additional $\frac{1}{2}$ hour or less	\$3.50

Leroy used the facilities in the gym from 9.30 a.m. to 12.30 p.m. How much did he pay?

Ans: \$ _____

4 The scores for Jaden's first three games in Round 1 are shown below.

Round 1	
Game	**Marks**
1st	78
2nd	106
3rd	85
4th	?

Jaden will move on to Round 2 if his average score of the four games in Round 1 is 95 or more. What is the lowest score Jaden must get in the 4th game to move on to Round 2?

Ans: _____

(Go on to the next page)

5 The figure is made up of a right-angled triangle and a semicircle. Given that AC = 70 cm, AB = 56 cm and BC = 42 cm, find the total area of the shaded parts of the figure.

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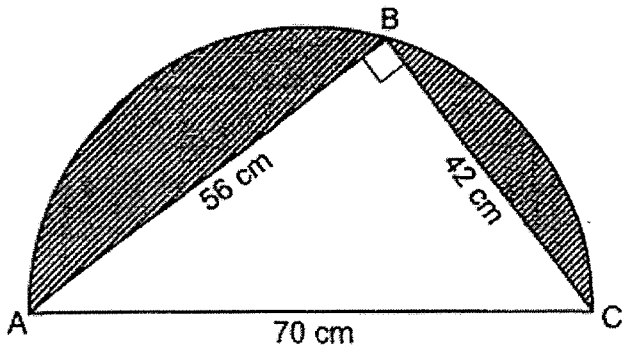
(Take $\pi = \frac{22}{7}$)



Ans: _____ cm^2

(Go on to the next page)

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

(45 marks)

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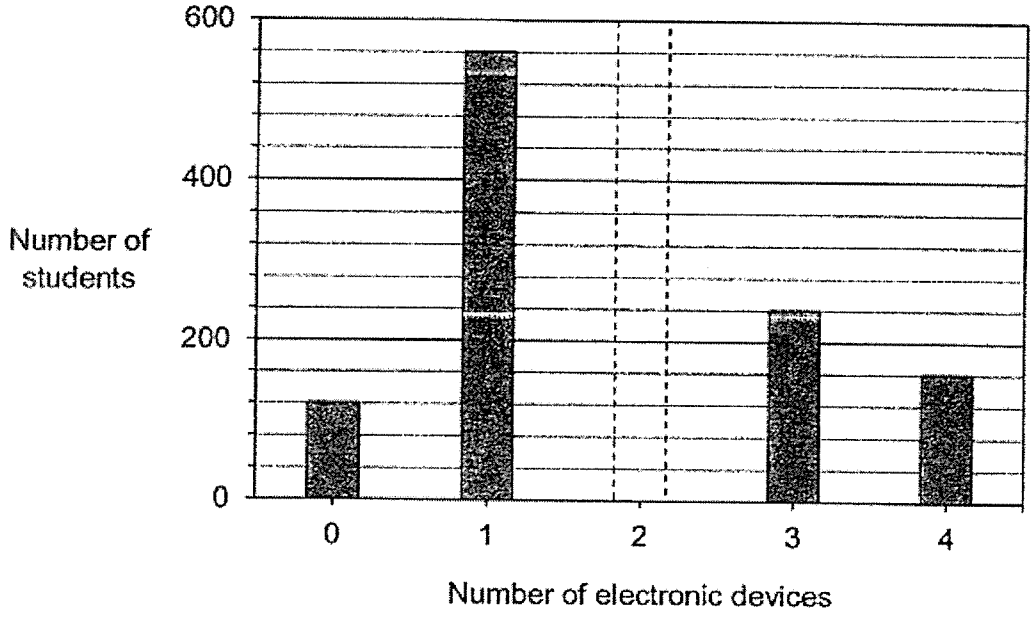
6 The bar graph shows the number of electronic devices owned by each student in a school. The bar that shows the number of students who own 2 electronic devices each has not been drawn.



(a) How many students do not own any electronic devices?

(b) Given that $\frac{1}{4}$ of the students have 2 electronic devices each, find the total number of students in the school.

Ans: (a) _____ [1]

(b) _____ [2]

(Go on to the next page)

7 Cheryl spent $2016 in July. This amount was a 10% decrease from what she spent in June. The amount she spent in June was a 20% decrease from what she spent in May. How much did Cheryl spend in May?

Do not write in this space

Ans: _____ [3]

(Go on to the next page)

8 A roll of tape has three types of shapes, ♡, ✿ and ⇨, printed in a repeated pattern.

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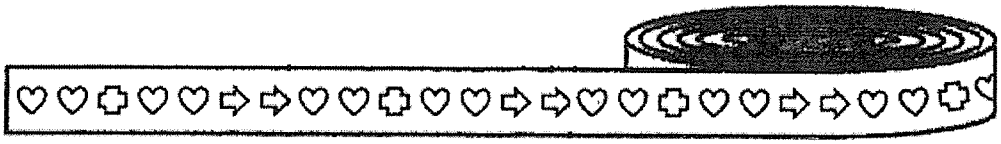

Meimei cuts a piece of tape from the roll.
In that piece, there are 84 fewer ✿ than ♡.
Find the least possible total number of shapes on that piece of tape.

Ans: _____ [3]

(Go on to the next page)

9 In the figure, ABCO, EFGO and KLMO are squares.
Given that ∠KNO = 40°, find ∠z.

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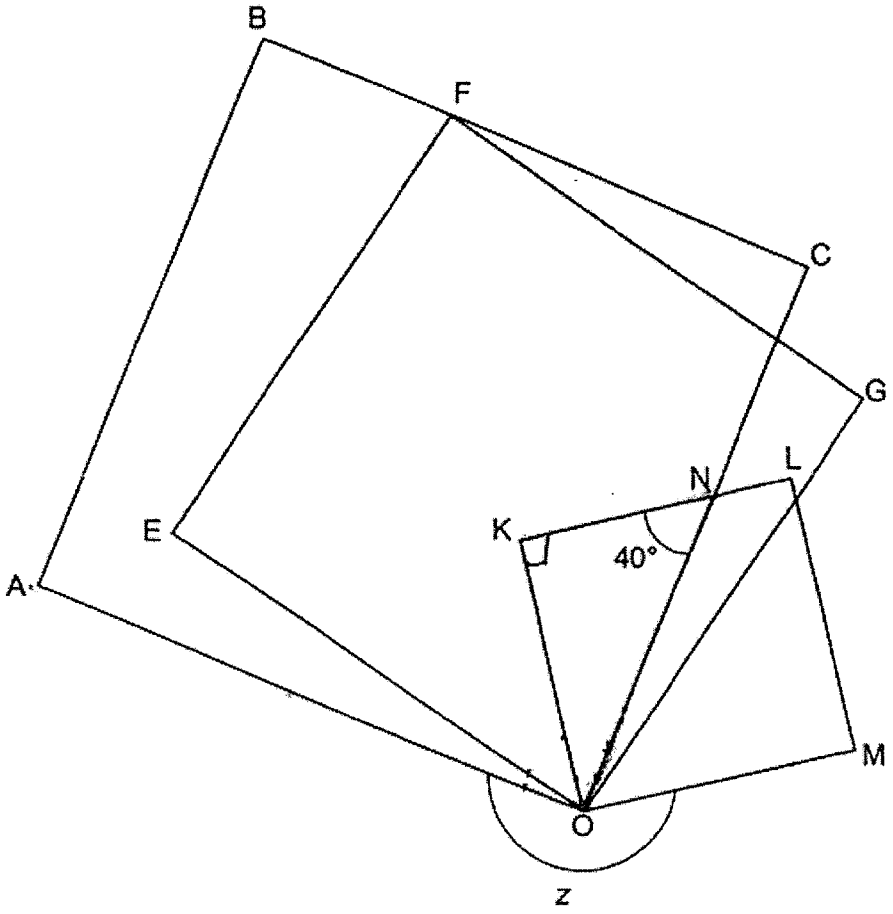

Ans: _____ [3]

(Go on to the next page)

10 Mrs Tan baked blueberry muffins and cinnamon muffins in the ratio 3 : 1. She sold 50% of all her muffins. $\frac{5}{6}$ of the muffins sold were blueberry muffins. In the end, she had 36 cinnamon muffins left. How many blueberry muffins did she have left?

Do not write in this space

Ans: _____ [3]

(Go on to the next page)

11 A clothing store offered 120 dresses at a 20% discount during a weekday sale. The line graph shows the number of dresses left unsold at the end of each day.

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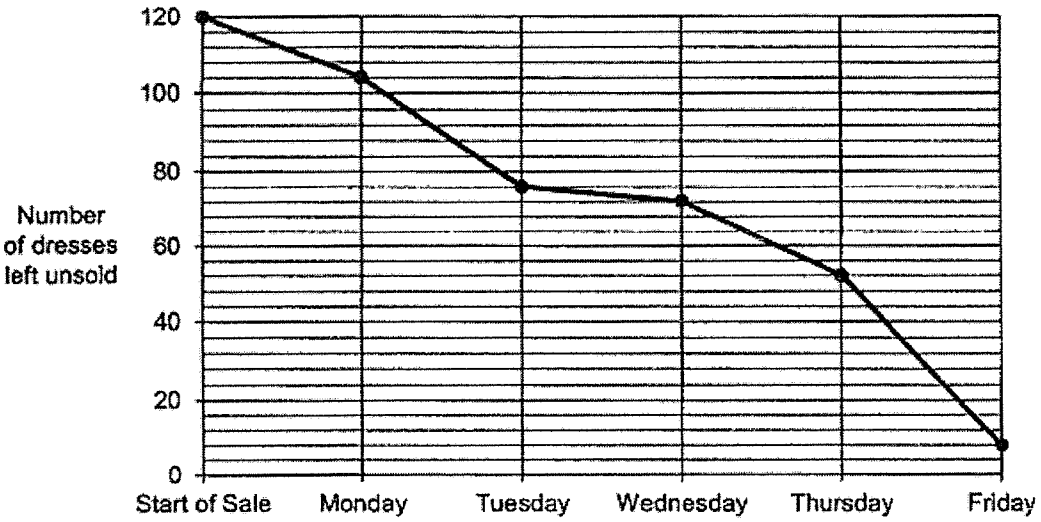


(a) On which day was the most number of dresses sold?

(b) The discounted price of each dress was $60 during the sale. After the sale, the remaining dresses were sold without discount. What was the total amount of money collected from selling all 120 dresses?

Ans: (a) _____ [1]

(b) _____ [3]

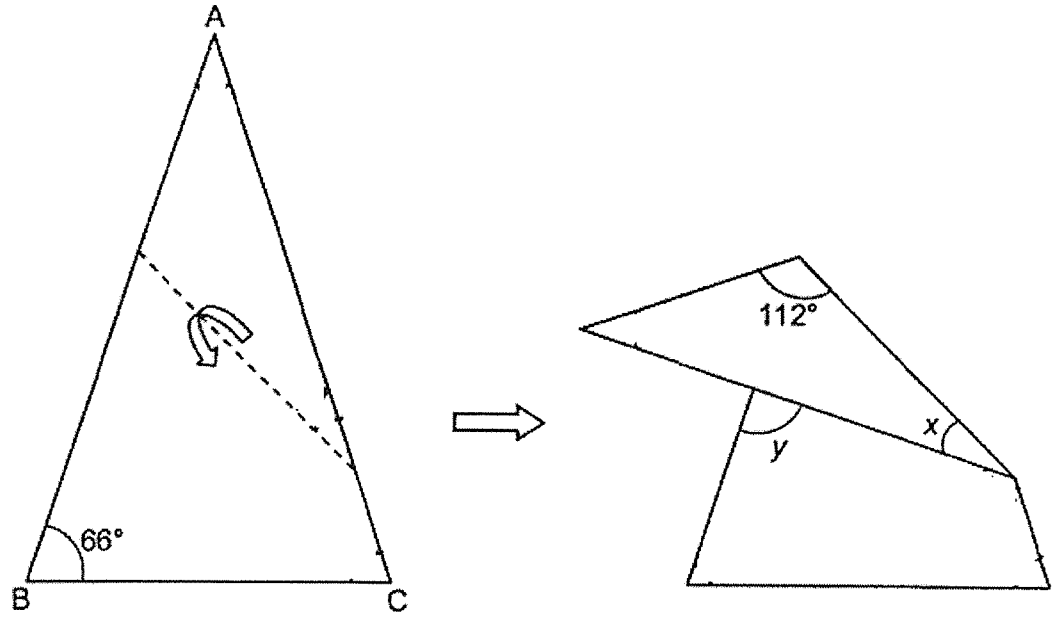
(Go on to the next page)

12 A triangular piece of paper is folded along the dotted line as shown below. Given that AB = AC, find:

Do not write in this space

(a) $\angle x$

(b) $\angle y$



Ans: (a) _____ [2]

(b) _____ [3]

(Go on to the next page)

13 The outline of the shaded figure below is formed by quarter circles and straight lines. Find the area of the shaded figure.
(Take $\pi = 3.14$)

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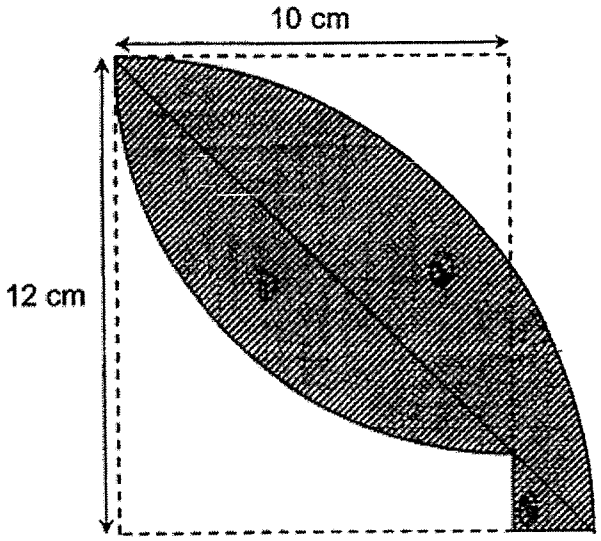

Ans: _____ [3]

(Go on to the next page)

14 A cuboid is shown below. The length, breadth and height are whole numbers in cm. The area of the face seen from the front view is 126 cm^2. The area of the face seen from the side view is 135 cm^2. The volume of the cuboid is less than 5000 cm^3.

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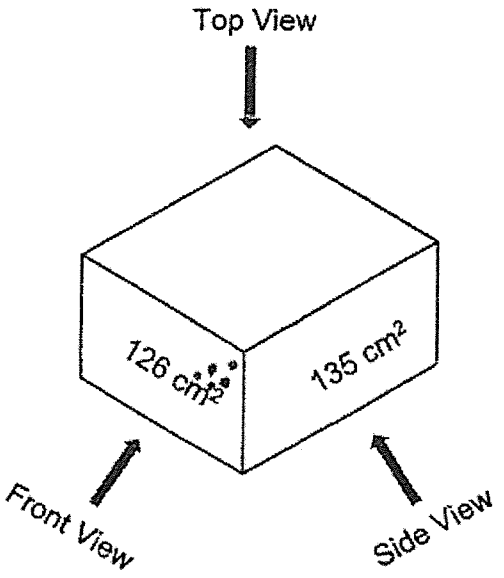

(a) Find the area of the face seen from the top view.

(b) Pamela painted all the faces of the cuboid. She then cut the cuboid into 1-cm cubes. How many of these cubes have 1 of the faces painted?

Ans: (a) _____ [2]

(b) _____ [2]

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15 The first three figures of a pattern are shown below.

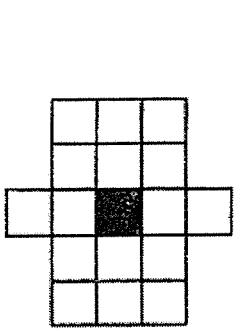

Figure 1

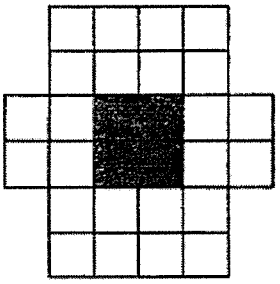

Figure 2

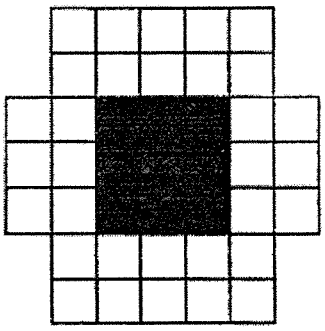

Figure 3

The table shows the number of white and grey squares used for each figure.

Figure Number	1	2	3	4
Number of white squares	16	24	32	
Number of grey squares	1	4	9	

[1]

(a) Fill in the table for Figure 4.

(b) How many grey squares are used for Figure 169?

(c) Find the total number of white and grey squares in Figure 169.

Ans: (b) _____ [1]

(c) _____ [2]

(Go on to the next page)

16 Blue stickers were sold in packets of 15 each. Green stickers were sold in packets of 40 each. Renee bought 5 packets of blue stickers and some packets of green stickers. Fatimah bought 13 packets of blue stickers and some packets of green stickers. Both girls bought the same total number of packets of stickers.

Do not write in this space

(a) How many more green stickers did Renee buy than Fatimah?

(b) After Renee used $\frac{3}{5}$ of her green stickers and Fatimah used half of her green stickers, they both had 452 green stickers left altogether. How many blue and green stickers did Fatimah buy altogether?

Ans: (a) _____ _____ [1]

(b) _____ [4]

(Go on to the next page)

17 Mary decorated a rectangular piece of cardboard using stars and smiley faces. On the top part, there were 2 stars for every 9 cm of length of the cardboard. On the bottom part, there were 5 smiley faces for every 12 cm. The stars and smiley faces were placed at an equal distance apart as shown.

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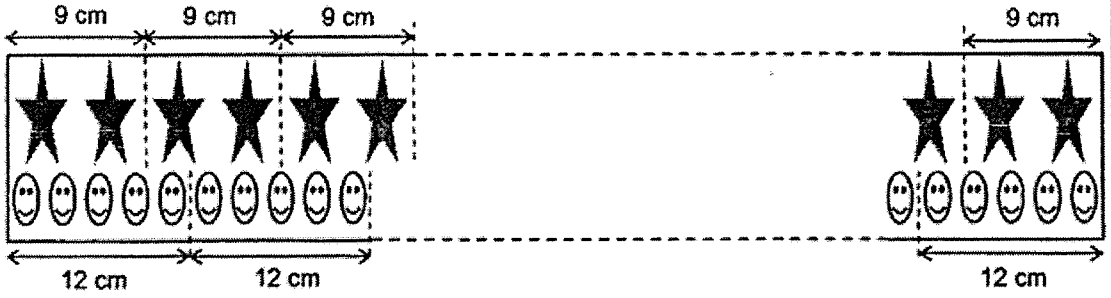
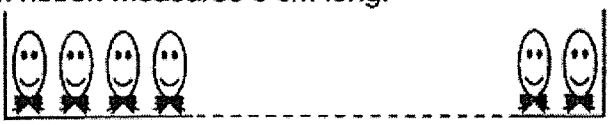


(a) A total of 552 stars and smiley faces were used to decorate the cardboard. How many smiley faces were there?

(b) Next, Mary wants to tie a ribbon under each smiley face as shown below. Each ribbon measures 6 cm long.



Given that ribbons were sold in rolls of 80 cm each, how many rolls of ribbons does Mary need to buy?

Ans: (a) _____ [3]

(b) _____ [2]

Setters: Mrs Tina Tan, Mrs Norah Idil, Ms Rajesheela

End of Paper 2

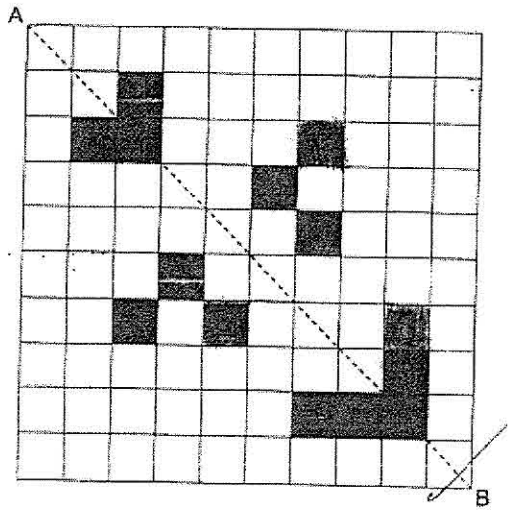
SCHOOL : HENRY PARK PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 PRELIM

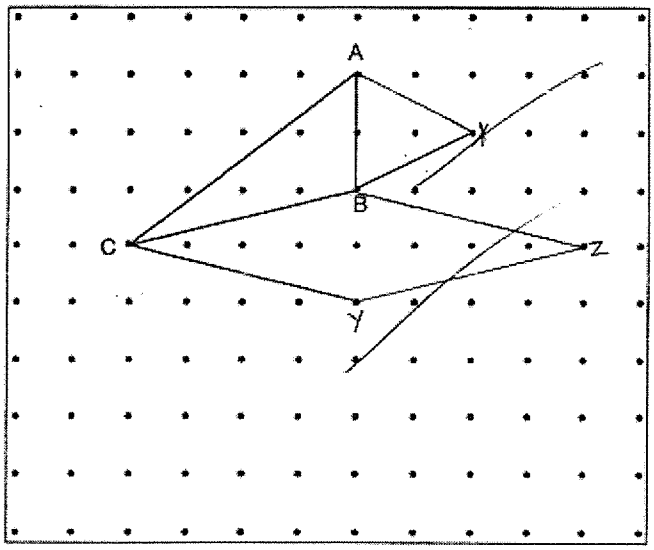
PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	2	3	4	2	4	2	3	1	4

Q 11	Q12	Q13	Q14	Q15
3	4	2	1	2

PAPER 1 BOOKLET B

Q16)	$3.45
Q17)	36
Q18)	1.9%
Q19)	
Q20)	10000ml
Q21)	133°
Q22)	75s
Q23)	20+40+20+40=120

	120+31.4= 151.4cm
Q24)	5:7
Q25)	a) $\left(\frac{14k-4}{3}\right)$ b) 108
Q26)	30 ÷ 2 = 15 15 x 10 x 0.5 = 150cm²
Q27)	
Q28)	$\frac{5}{16}$
Q29)	$66.6
Q30)	13

PAPER 2

Q1)	54 ÷ 6 = 9 9 x 3w = 27w 150 – 42 = 108 108 ÷ 27 = 4
Q2)	180 – 137 = 43 180 – 90 – 43 = 47 180 – 47 = 133°
Q3)	$22
Q4)	78 + 106 + 85 = 269 95 x 4 = 380 380 – 269 = 111
Q5)	70 ÷ 2 = 35 35 x 35 x 22/7 x ½ = 1925 56 x 42 x 0.5 = 1176

	1925 – 1176 = 749cm²
Q6)	a) 120 b)1440
Q7)	May : 2240 x 100/80 = 2800 June : 2016 x 100/90 = 2249 July : $2016 $2800
Q8)	Each set : 4 – 1 = 3 84 ÷ 3 = 28 28 x 7 = 196 196 – 2 = 194
Q9)	180 – 90 – 40 = 50 90 – 50 = 40 40 + 90 = 130 360 – 130 = 230°
Q10)	3u - 1u = 2u 2u = 36 9u – 5u = 4u 4u = 35 x 2 = 72
Q11)	a) Friday b) $7320
Q12)	a) 180 – 66 – 66 = 48 180 – 48 – 112 = 20° b) 180 – 20 – 20 = 140 360 – 140 – 66 – 66 = 88°
Q13)	12 x 10 = 120 10 x 10 x 3.14 x ¼ = 78.5 120 – 78.5 = 41.5 ¼ x 3.14 x 12 x 12 = 113.04 113.04 – 41.5 = 71.54cm²
Q14)	a) 210cm² b) 662
Q15)	a) 40 16 b) 169 x 169 = 28561 c) 29921
Q16)	a) 13 – 5 = 8 8 x 40 = 320

	b) 4G + 128 + 5G = 452 9G = 452 + 28 = 324 10G = 324 x 10/9 = 360 13 x 15 = 195 195 + 360 = 555
Q17)	a) 8 + 15 = 23 552 ÷ 23 = 24 36 x 24 = 864 192 + 360 = 552 b) 80 ÷ 6 = 13R2 360 ÷ 13 = 27R9 27 + 1 = 28

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

PRELIMINARY EXAMINATION 2021
PRIMARY 6
MATHEMATICS

PAPER 1
BOOKLET A

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Shade your answers in the Optical Answer Sheet (OAS) provided.
The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6._____

Date: 20 August 2021

/20

This booklet consists of 7 printed pages including this page.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

---

1 $2\,021\,021 = 2\,000\,000 + 2 \times \square + 1021.$

What is the missing number in the box?

(1) 10

(2) 100

(3) 1000

(4) 10 000

2 Which of the following is the same as 7030 mℓ ?

(1) 7 ℓ 3 mℓ

(2) 7 ℓ 30 mℓ

(3) 70 ℓ 3 mℓ

(4) 70 ℓ 30 mℓ

3 Which digit in 31.507 is in the tenths place?

(1) 1

(2) 0

(3) 3

(4) 5

4 Which one of the following is the closest estimate of 14.6×38.4?

(1) 15×38

(2) 15×39

(3) 14×38

(4) 14×39

5 $\frac{3}{5}$ of Ali's marbles are blue and the rest are yellow.
What percentage of Ali's marbles are blue?

(1) 37.5%

(2) 40%

(3) 60%

(4) 62.5%

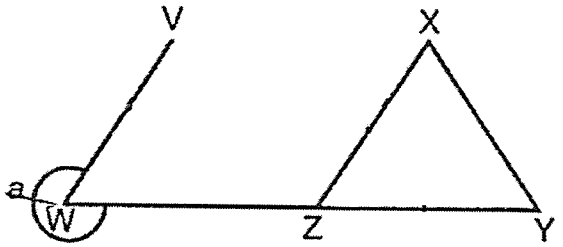
6 XYZ is an equilateral triangle. WZY is a straight line and WV is parallel to ZX. Find $\angle a$.

(1) 60°

(2) 120°

(3) 270°

(4) 300°



(Go on to the next page)

7 Which of the following fractions is closest to 1?

(1) $\frac{3}{4}$

(2) $\frac{4}{3}$

(3) $\frac{5}{6}$

(4) $\frac{6}{5}$

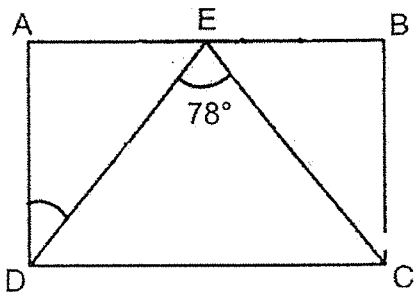
8 ABCD is a rectangle. E is the mid-point of AB and $\angle DEC = 78°$.
Find $\angle ADE$.

(1) 39°

(2) 45°

(3) 51°

(4) 78°



9 Chee Seng packed 216 pens into 3 boxes. The ratio of the number of pens in box A to the number of pens in box B to the number of pens in box C is 1 : 3 : 4. How many more pens were there in box B than in box A?

(1) 27

(2) 54

(3) 81

(4) 108

(Go on to the next page)

10 In the programme guide shown below, one programme leads to another without any break in between.

Start Time	Programme
2.15 p.m.	Magic Show
2.45 p.m.	Art and Craft
4.00 p.m.	Music Appreciation
4.50 p.m.	Cooking Class

How much longer is the Art and Craft programme than the Music Appreciation programme?

(1) 25 min

(2) 50 min

(3) 1 h 5 min

(4) 1 h 15 min

11 The average mass of 3 bags of rice is 10 kg.
A fourth bag of rice weighing 6 kg is added to the total mass.
What is the average mass of the 4 bags of rice now?

(1) 9 kg

(2) 8 kg

(3) 7 kg

(4) 4 kg

(Go on to the next page)

12 The table shows the charges for bicycle rental.

 RENTAL RATE FOR 1 BICYCLE	
For the first 2 hours	\$3.50
For every additional $\frac{1}{2}$ hour	\$1.20

Dinesh rented 2 bicycles from 4 p.m. to 7 p.m. How much did he pay?

(1) \$5.90

(2) \$8.30

(3) \$11.80

(4) \$16.60

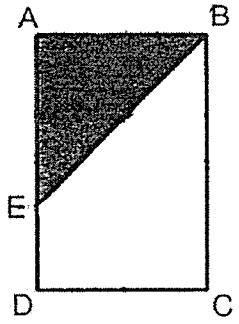
13 ABCD is a rectangle. AE is twice of ED and AE = AB.
What fraction of the figure is shaded?

(1) $\frac{1}{3}$

(2) $\frac{1}{5}$

(3) $\frac{2}{3}$

(4) $\frac{2}{5}$



(Go on to the next page)

14 A pair of sandals costs $\$w$ in a shop. The cost of a pair of boots is \$25 more than the cost of 3 pairs of sandals. Find the cost of 3 pairs of boots.

(1) $\$3w$

(2) $\$(3w + 25)$

(3) $\$(6w + 75)$

(4) $\$(9w + 75)$

15 A printer started to print a set of documents at 10.00 a.m.
At 10.24 a.m., half of the set of documents was printed.
At what time would $\frac{7}{8}$ of the set of documents be printed?

(1) 10.30 a.m.

(2) 10.33 a.m.

(3) 10.42 a.m.

(4) 10.54 a.m.

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

PRELIMINARY EXAMINATION 2021
PRIMARY 6
MATHEMATICS

PAPER 1
BOOKLET B

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

Name: _____ _____ ( )

Class: Primary 6.__

Date: 20 August 2021

Paper 1 Booklet A	**/ 20**
Paper 1 Booklet B	**/ 25**
Paper 2	**/ 55**
TOTAL	**/ 100**

Parent's Signature: _____

This booklet consists of 8 printed pages including this page.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

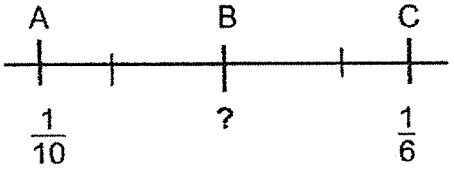
16 Find the value of 0.78×80.

Ans: _____

17 A number has 7 factors. Five of its factors are 1, 2, 4, 16 and 64.
What are the other two factors?

Ans: _____ and _____

18 In the number line below, AB = BC. What is the fraction at point B? Give your answer in the simplest form.



Ans: _____

(Go on to the next page)

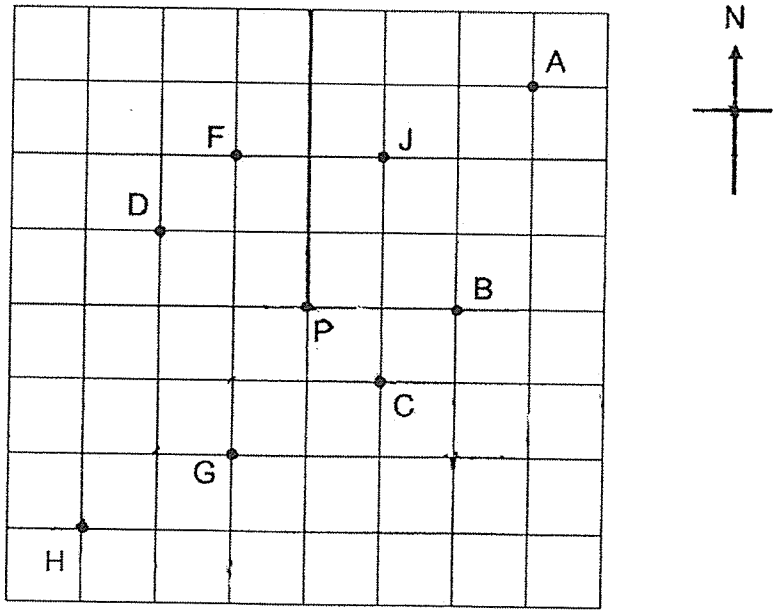
19 Find the value of $2y - \frac{y}{5}$ when $y = 7$.

Do not write in this space

Ans: _____

20 In the grid below, Siti is standing at Point P, facing North. She makes a 225° turn anticlockwise, and then a 90° turn clockwise.

Which point is she facing now?



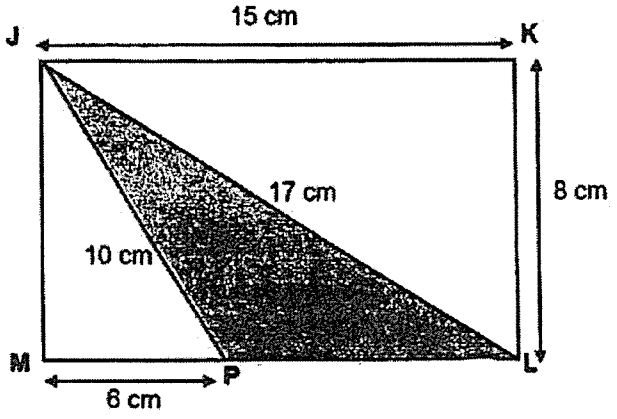
Ans: Point _____

(Go on to the next page)

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

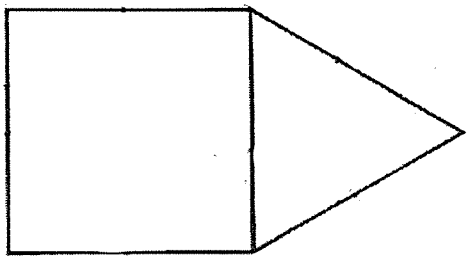
Do not write in this space

21 JKLM is a rectangle. Find the shaded area.



Ans: _____ cm^2

22 The figure below is made up of a square and an equilateral triangle. The area of the square is 81 cm^2. Find the perimeter of the figure.



Ans: _____ cm

23 Three classes of pupils sold second-hand books for charity.
They collected $7 for each fiction book and $5 for each picture book.
The table shows the number of books sold by the three classes.

Class	Number of books sold	
	Fiction Books	Picture Books
A	12	10
B	6	20
C	8	15

Which class collected the most money and how much was it?

Ans: Class _____ , $_____

Do not write in this space

24 The solid figures below are made up of 1-cm cubes. How many 1-cm cubes must be removed from Figure X to form Figure Y?

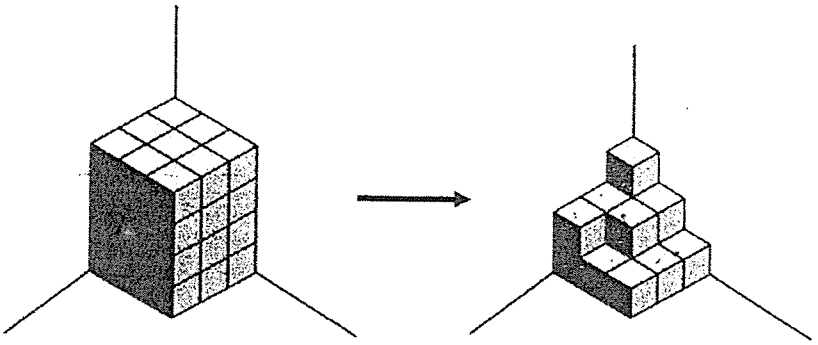


Figure X Figure Y

Ans: _____

(Go on to the next page)

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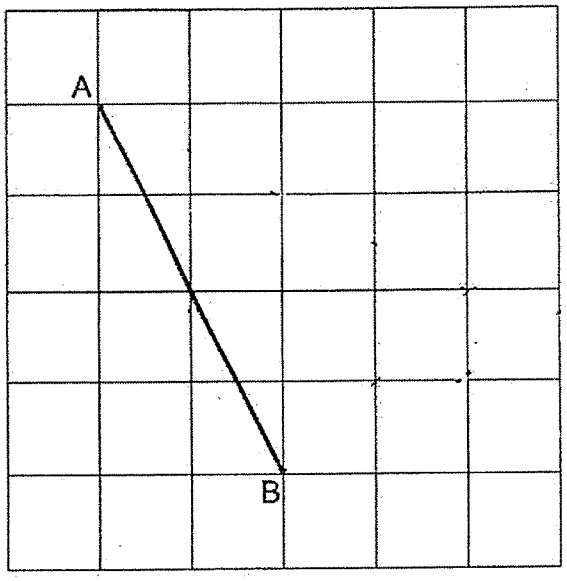
25 In the grid below, the line AB has been drawn for you.

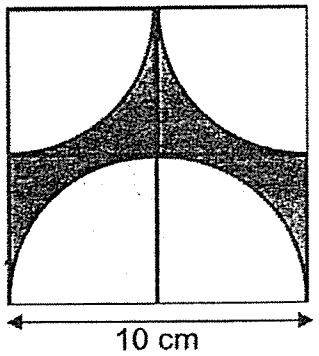
(a) Draw an isosceles triangle, such that AB = AC.
Label point C clearly.

(b) Measure BC.



Ans: (b) _____ cm

26 The figure shows a semicircle and 2 quarter circles drawn inside a square. Find the area of the shaded region.
Express your answer in terms of π.



Ans: _____ cm^2

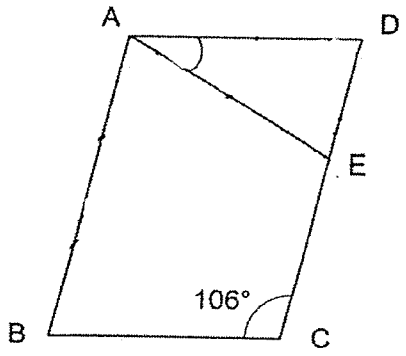
(Go on to the next page)

27 Mrs Lim bought some apples. She gave the fruit seller $50 and received $14 change. How many apples did she buy?

Do not write in this space

Ans: _____

28 ABCD is a parallelogram and AD = AE. Find ∠DAE.



Ans: _____ °

(Go on to the next page)

29 Mrs Chan paid $600 for a vacuum cleaner after a discount of 25%. What was the price of the vacuum cleaner before discount?

Do not write in this space

Ans: $ _____

30 The pupils in a school are divided equally into Group X and Group Y. The ratio of the number of boys to the number of girls in Group X is 3 : 1 and in Group Y, it is 1 : 2. What is the ratio of the total number of girls to the total number of pupils?

Ans: _____

End of Paper

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

PRELIMINARY EXAMINATION 2021
PRIMARY 6
MATHEMATICS

PAPER 2

Duration: 1h 30 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 6._____

Date: 20 August 2021

/55

Parent's Signature: _____

This booklet consists of 13 printed pages including this page.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

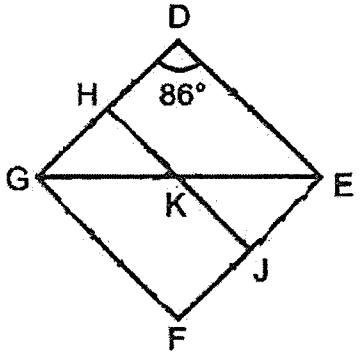
Do not write in this space

1 A cup is $\frac{2}{5}$-filled with water. It is then poured into an empty jug which has a volume that is three times that of the cup. What fraction of the jug is filled with water?

Ans: _____

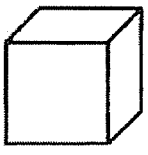
2 DEFG is a rhombus. HJ is parallel to DE and GF. $\angle GDE = 86°$.

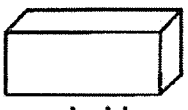
Find $\angle HKE$.



Ans: _____ °

3 The length of each side of a cube is 12 m. The volume of the cube is twice the volume of a cuboid. Find the volume of the cuboid.


12 m


cuboid

Ans: _____ m^3

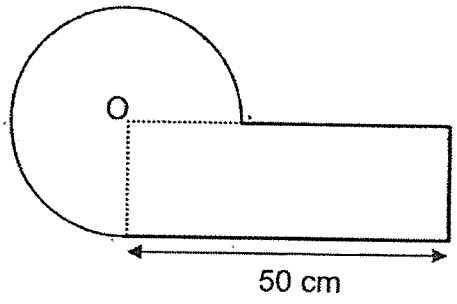
(Go on to the next page)

4 The ratio of the number of ten-cent coins to the number of twenty-cent coins in a purse was 3 : 5. When 60 twenty-cent coins were removed, there were an equal number of ten-cent coins and twenty-cent coins. How many ten-cent coins were there in the purse at first?

Do not write in this space

Ans: _____

5 The figure is made up of a 3 quarter circles and a rectangle.
O is the centre of the circle and the diameter of the circle is 14 cm.
Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)



Ans: _____ cm

(Go on to the next page)

For questions 6 to 17, show your working clearly and write your answers in the space provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

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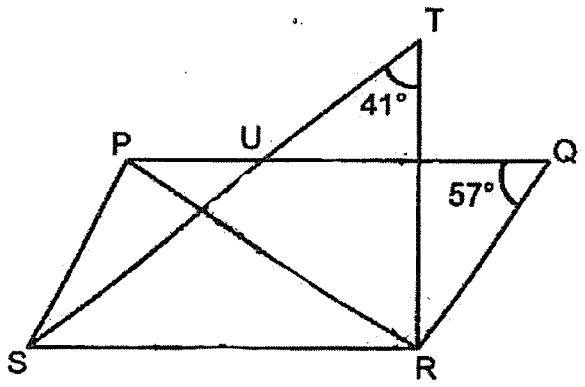
6 PQ is parallel to SR. TR is perpendicular to SR and PR is perpendicular to RQ. Find ∠TVR.



Ans: _____ [3]

7 Mei Ling bought $\frac{7}{8}$ m of ribbon to make some bows. She needed $\frac{3}{20}$ m of ribbon to make one bow.

(a) How many bows can she make?

(b) What was the length of ribbon left? Give your answer in the simplest form.

Ans: (a) _____ [1]

(b) _____ [2]

(Go on to the next page)

8 Three teachers accompanied a group of 38 pupils to an amusement park. The ticket for a child cost $\$y$. An adult ticket cost \$2 more than a child's ticket.

(a) Find the total amount paid for all. Express your answer in terms of y.

(b) The total amount paid was \$211. What was the cost of a child's ticket?

Do not write in this space

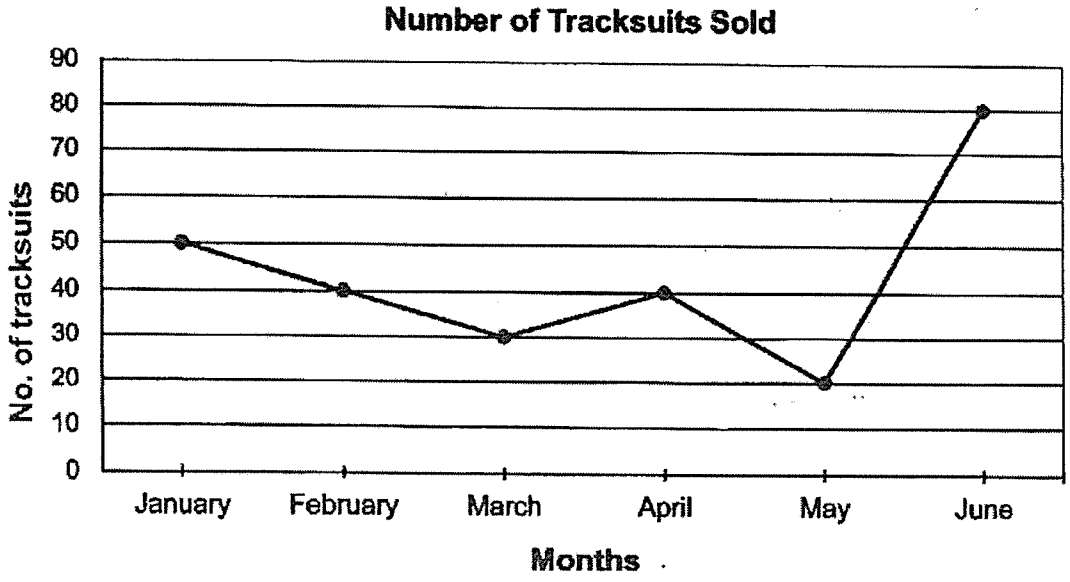
Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

9 The line graph below shows the number of tracksuits sold in a shop from January to June.

Do not write in this space



(a) In which 2 months were the sale of tracksuits sold from January to June above the average number of tracksuits sold during that same period?

(b) What was the percentage increase in the sale of tracksuits from May to June?

Ans: (a) _____ and _____ [1]

(b) _____ [2]

(Go on to the next page)

10 The table and the bar graph below show the distribution of all Primary 5 pupils in the different CCA groups. The percentage of pupils who joined Clubs was covered by a blot of ink.

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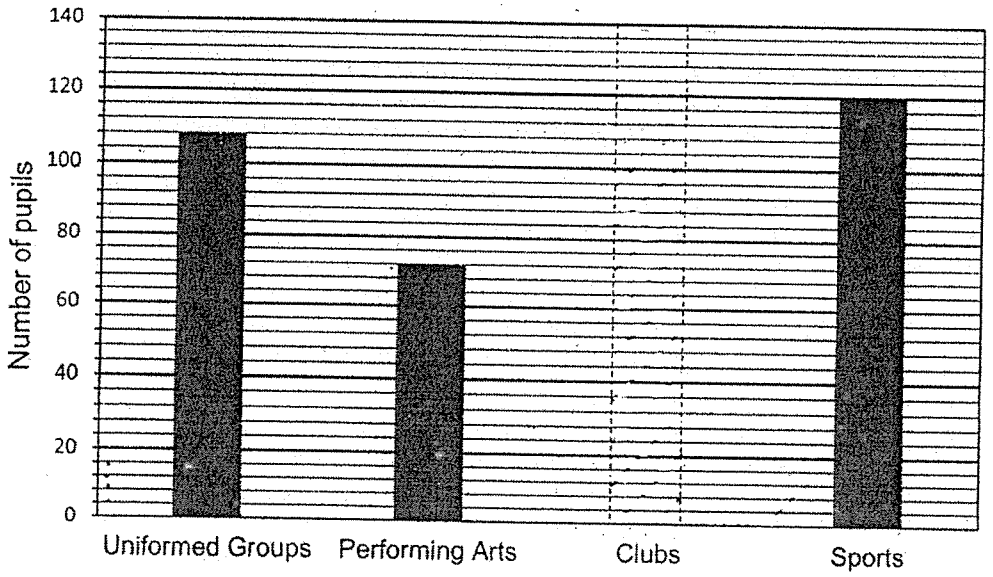
Types of CCA	Percentage of pupils
Uniformed Groups	27
Performing Art	18
Clubs	
Sports	30



(a) What was the total number of pupils in Primary 5?

(b) Draw the bar in the graph above for the number of pupils in Clubs. [2]

Ans: (a) _____ [2]

(Go on to the next page)

11 During a sale, Ban Meng bought 10 identical plates. His aunt bought 6 such plates. She also bought 4 mugs at $3.20 each. Altogether, she spent $2.40 less than Ban Meng. How much did Ban Meng and his aunt spend altogether?

Do not write in this space

Ans: _____ [3]

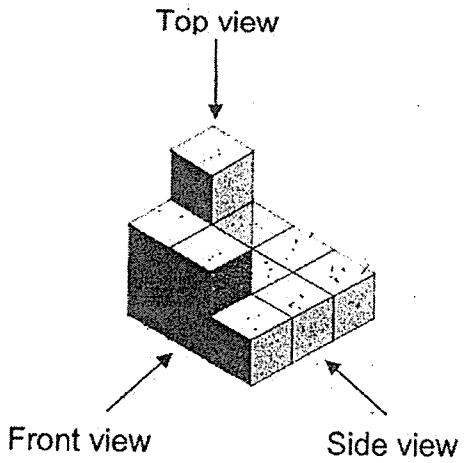
12 In a test, the average class score was 77 marks. Mr Lim discovered that he had recorded 14 students' marks wrongly. After adding 3 marks to each of these students, the average class score became 79. How many students were there in the class?

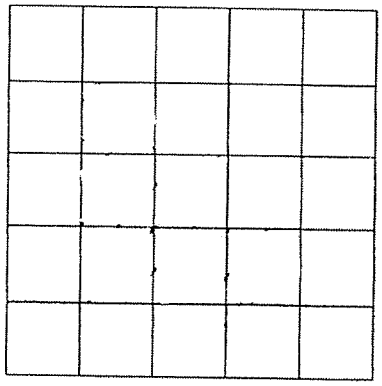
Ans: _____ [3]

13 The solid below is made up of 13 1-cm cubes.

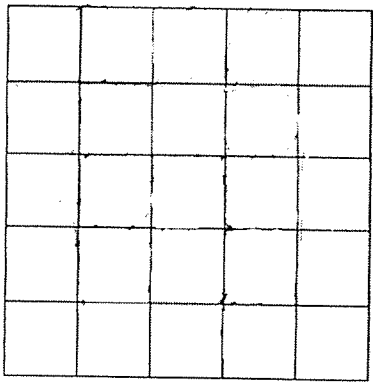
(a) Draw the Front view and Top view of the solid in the grid provided.

(b) The whole solid is completely dipped into a pot of red paint.
Find the total area of the solid that has red paint.





Front view [1]



Top view [1]

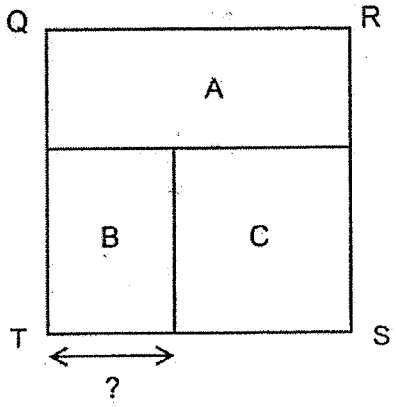
Ans: (b) _____ [2]

Do not write in this space

(Go on to the next page)

14 The square QRST is made up of two rectangles and a square.
The ratio of the area of Rectangle A to the area of Rectangle B is 5 : 3.
The ratio of the area of Rectangle B to the area of Square C is 2 : 3.
The area of square QRST is 625 cm^2. Find the breadth of Rectangle B.

Do not write in this space



Ans : _____ [4]

(Go on to the next page)

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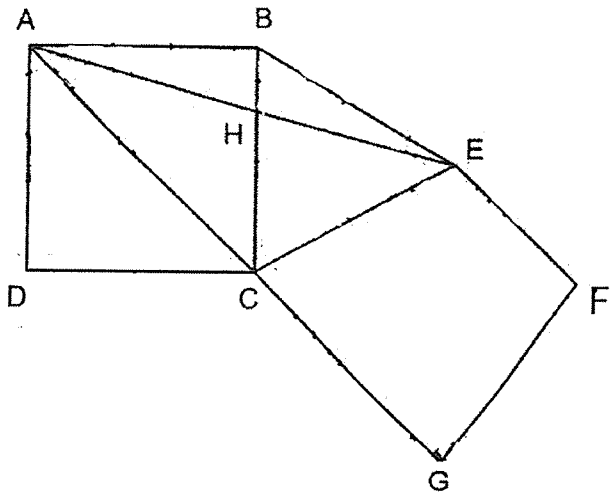
15 ABCD is a square and BCE is an equilateral triangle.
AEFG is a trapezium and AG is parallel to EF.

(a) Find ∠ EAC.

(b) Find ∠ CEF.



Ans: (a) _____ [2]

(b) _____ [1]

(c) The figure above is not drawn to scale. Each of the statements below is either true, false or not possible to tell from the information given.
For each of the statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
ABEC is a trapezium.			
∠CEF is greater than ∠EFG.			
∠ECG + ∠FGC = 180°			

[2]

(Go on to the next page)

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16 The figure is made up of shaded and unshaded squares.

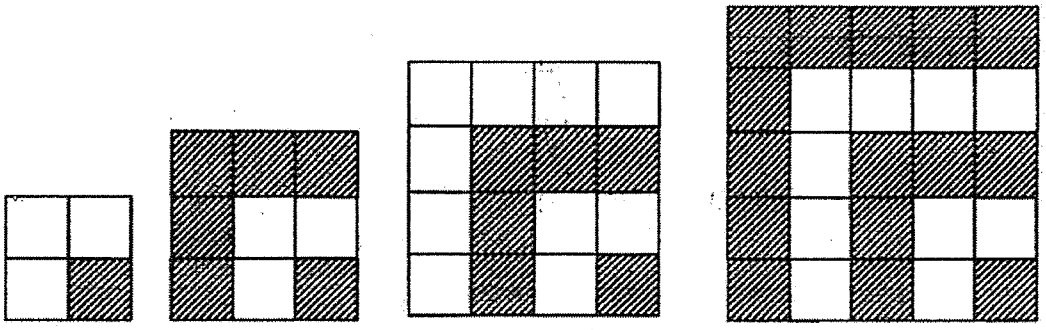


Figure 1 Figure 2 Figure 3 Figure 4

Figure number	Number of shaded squares	Number of unshaded squares	Total number of squares
1	1	3	4
2	6	3	9
3	6	10	16
4	15	10	25
5	(ai) _____	(aii) _____	36

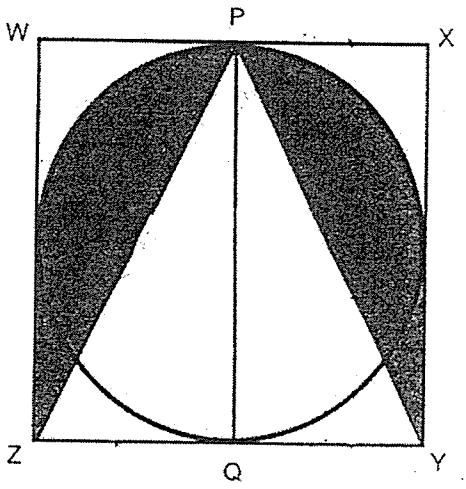
(a) Complete the table for Figure 5. [1]

(b) There are a total of 81 squares. How many shaded and unshaded squares are there?

Ans: (b) Shaded _____ Unshaded _____ [3]

17 The figure below shows a circle enclosed in a square, WXYZ, of side 40 cm. WP = PX and ZQ = QY. Find the area of the shaded parts. (Take $\pi = 3.14$)

Do not write in this space



Ans: _____ [5]

End of paper

SCHOOL : METHODIST GIRLS' SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	2	4	1	3	4	3	1	2	1

Q 11	Q12	Q13	Q14	Q15
1	3	1	4	3

PAPER 1 BOOKLET B

Q16) 62.4

Q17) 32 and 8

Q18) $\frac{2}{15}$

Q19) $12\frac{3}{5}$

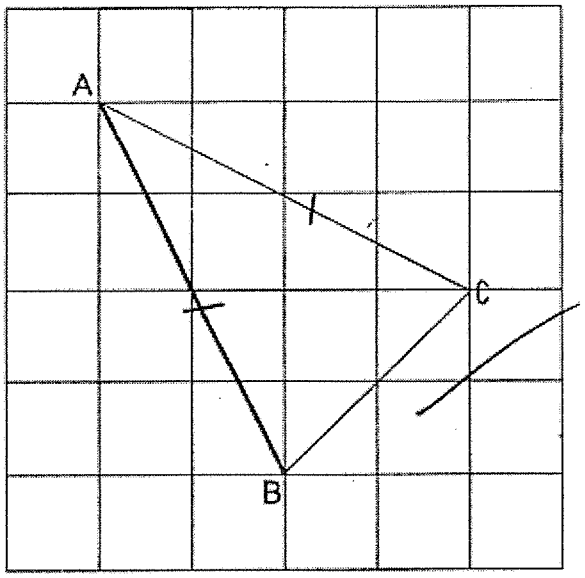
Q20) H

Q21) 15cm – 6cm = 9cm
0.5 x 90m x 80cm = 36cm²

Q22) 9cm x 5 = 45cm²

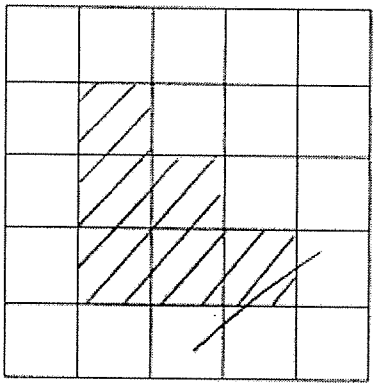
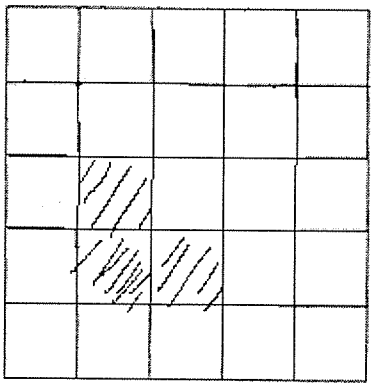
Q23) Class B, $142

Q24) 1+5+9= 15
3 x 3 x 4 = 36
36 + 5 = 21

Q25) a)	 b) 3.6cm
Q26)	$5 \times 5 \times \pi = 25\pi$ $10cm \times 10cm = 100cm^2$ $(100 - 25\pi)cm^2$
Q27)	\$50 - \$14 = \$36 \$36 ÷ 9 = 4 4 x 4 = 16
Q28)	32
Q29)	**\$800**
Q30)	11 : 24

PAPER 2

Q1)	$\frac{2}{15}$
Q2)	133
Q3)	12m x 12m x 12m = 1728m³ 1728m³ ÷ 2 = 864m³
Q4)	5u – 3u = 2u 2u = 60 1u = 60/2 = 30 3u = 30 x 3 = 90
Q5)	14cm ÷ 2 = 7cm 50cm – 7cm = 43cm Circumference of ¾ circle = ¾ x π x d

	¾ x 22/7 x 14cm = 33cm 33cm + 50cm + 7cm + 43cm = 133cm
Q6)	$\angle QUV = 90° + 41°$ $= 131°$ $\angle UVR = 360° - (131° + 57° + 90°)$ $= 82°$
Q7)	a) 5 b) 1/8m
Q8)	a) 3 x $(y+2) = $(3y+6) $y x 38 = $(38y) $(38y) + $(3y + 6) = $(41y + 6) b) $211 - $6 = $205 41y = $205 Y = $205 ÷ 41 = $5
Q9)	a) January and June b) 300%
Q10)	a) 27% = 108 1% = 4 100% = 400 b) 100% - (27% + 18% + 30%) = 25% 4 x 25 = 100
Q11)	$3.20 x 4 = $12.80 $12.80 + $2.40 = $15.20 $15.20 ÷ 4 = $3.80 $3.80 x 16 = $60.80 $60.80 + $12.80 = $73.60
Q12)	3 x 14 = 42 79 – 77 = 2 42 ÷ 2 =21
Q13)	a)  Front view [1]  Top view [1]

	b) 42cm²
Q14)	$\sqrt{625cm^2} = 25cm$ 625cm² ÷ 25 x 9 = 225cm² $\sqrt{225cm^2}$ = 15cm 25cm – 15cm = 10cm
Q15)	a) 30° b) 105° c) False Not possible to tell False
Q16)	Ai) 15 ii) 21 b)shaded 45 unshaded 36
Q17)	40cm² ÷ 2 = 20cm Area of circle = 3.14 x 20cm x 20cm = 1256cm² 40cm x 40cm = 1600cm² 1600cm² - 1256cm² = 344cm² 344cm² ÷ 4 = 86cm² 86cm² x ½ = 800cm² 1428cm² - 800cm² = 628cm²

NAN HUA PRIMARY SCHOOL
PRELIMINARY EXAMINATION – 2021
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET A)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided for Questions 1-15.
6. The use of calculators is **NOT** allowed.

Name : _____ ( )

Class : 6_____

Date : 19 August 2021 **Parent's Signature :**_____

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1. Round 35 896 to the nearest hundred.

   (1) 35 000

   (2) 35 800

   (3) 35 900

   (4) 36 000

2. What is the value of 3 hundreds, 4 tenths and 5 thousandths?

   (1) 0.345

   (2) 300.405

   (3) 340.005

   (4) 5300.4

3. Arrange the following numbers from the smallest to the largest.

   6.306 6.036 6.360

	Smallest				Largest
(1)	6.036	,	6.306	,	6.36
(2)	6.36	,	6.036	,	6.306
(3)	6.36	,	6.306	,	6.036
(4)	6.036	,	6.36	,	6.306

4. What is the value of $0.3 \div 60$?

(1) 0.005

(2) 0.02

(3) 0.05

(4) 0.5

5. Simplify the following algebraic expression.

$17d + 15 - 3d - 6$

(1) $14d + 9$

(2) $14d + 21$

(3) $20d + 9$

(4) $20d + 21$

6. What is the approximate mass of a school bag?

(1) 8 g

(2) 8 kg

(3) 80 g

(4) 80 kg

7. Which of the following is the same as 40 175 cm?

(1) 4 m 175 cm

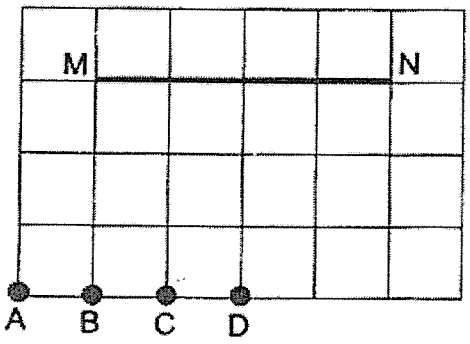
(2) 40 m 175 cm

(3) 401 m 75 cm

(4) 4017 m 5 cm

8. A, B, C and D are points on a square grid.

Which point when joined to M and N forms an isosceles triangle?



(1) A

(2) B

(3) C

(4) D

*Use the information below to answer Questions **9** and **10**.*

The table below shows the number of members in a club for the years 2020 and 2021.

	2020	2021
Number of boys	60	40
Number of girls	40	50
Total	100	90

9. What is the ratio of the number of boys to the total number of members for the year 2020?

(1) 3 : 5
(2) 4 : 9
(3) 6 : 19
(4) 10 : 19

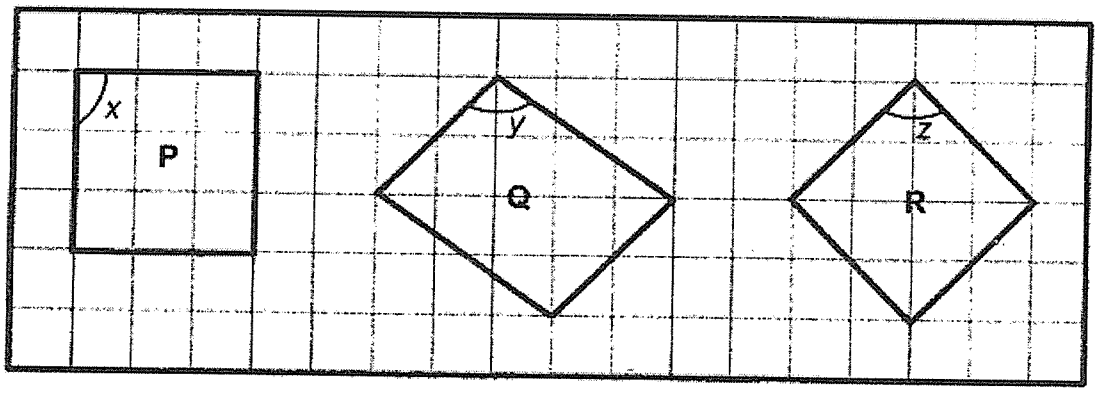
10. What is the percentage increase in the number of girls from 2020 to 2021?

(1) 10%
(2) 20%
(3) 25%
(4) 50%

11. The journey from Sam's school to home is 35 minutes by car. Sam wants to reach home at 2.20 p.m. to catch his favourite television programme. What is the latest time Sam needs to be in the car to reach home on time?

(1) 01 45
(2) 13 45
(3) 02 55
(4) 14 55

12. Three figures P, Q and R are shown in the square grid below.



Which of the following statements is true?

(1) $\angle x = \angle z$

(2) $\angle y = \angle z$

(3) Figure P has the same area as Figure R.

(4) Figure Q has the same perimeter as Figure R.

13. Mr Raj had 360 storybooks. He sold $\frac{2}{5}$ of them on Monday and $\frac{1}{3}$ of the remainder on Tuesday. How many storybooks did he sell on Monday and Tuesday?

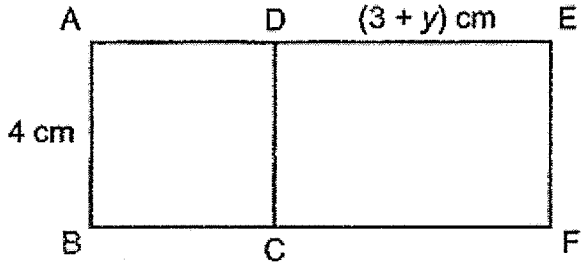
(1) 144

(2) 216

(3) 264

(4) 384

14. The figure is made up of a square ABCD and a rectangle CDEF. AB = 4 cm and DE = (3 + y) cm. What is the area of ABFE in square centimetres?



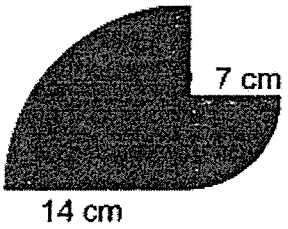
(1) $4 \times 7 + y$

(2) $4 \times 4 + 3 + y$

(3) $4 \times (4 + 3 + y)$

(4) $4 \times 4 \div 4 \times 3 + y$

15. The figure below is made up of 2 quarter circles of radii 7 cm and 14 cm. What is the perimeter of the figure? Take $\pi = \frac{22}{7}$.



(1) 33 cm

(2) 44.5 cm

(3) 54 cm

(4) 61 cm

NAN HUA PRIMARY SCHOOL
PRELIMINARY EXAMINATION – 2021
PRIMARY 6

MATHEMATICS
PAPER 1
(BOOKLET B)

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of calculators is **NOT** allowed.

Marks Obtained

Paper 1	**Booklet A**		**/ 45**
	Booklet B		
Paper 2			**/ 55**
Total			**/ 100**

Name : _____ ( )

Class : 6_____

Date : 19 August 2021 **Parent's Signature:**_____

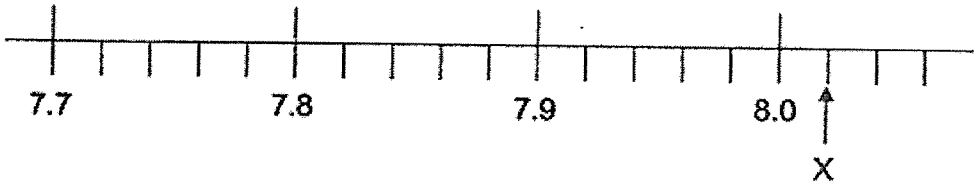
Questions **16** to **20** carry **1** mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. [5 marks]

Do not write in this space

16. A handbag cost $96 after a discount of 20%. What is the original price of the handbag?

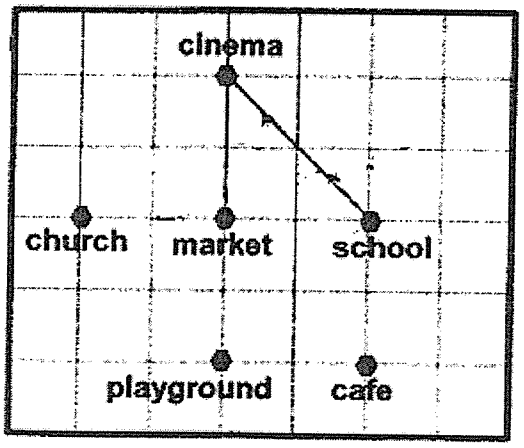
Ans : $ _____

17. Part of a scale is shown below. What is the value of X?



Ans : _____

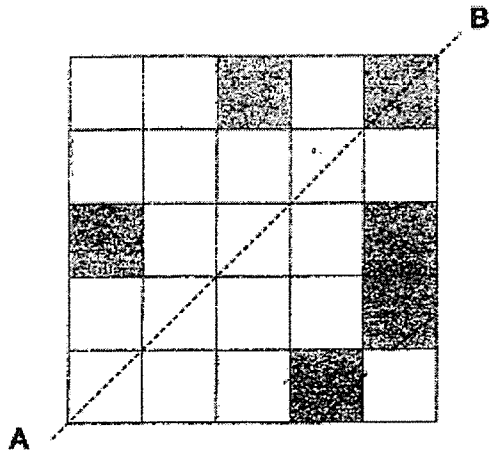
18. In the square grid below, Meiqi is at one of the landmarks. She is facing the market. When she turns 45° anti-clockwise, she faces the school. Which landmark is Meiqi at?



Ans: _____

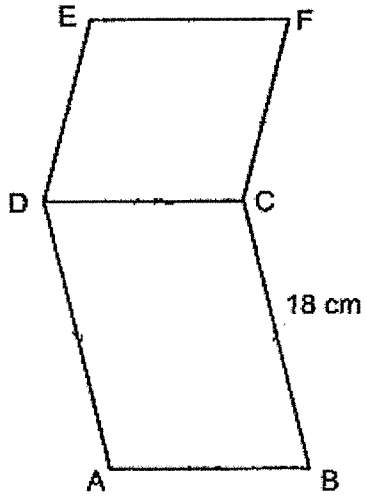
Subtotal	/ 3

19. There are 6 shaded squares in the figure. Shade 3 more squares to form a symmetric figure with AB as the line of symmetry.



Do not write in this space

20. The figure below is made up of a parallelogram ABCD and a rhombus CDEF. The perimeter of the figure is 76 cm. BC = 18 cm. What is the perimeter of the rhombus CDEF?



Ans : _____ cm

Subtotal	/ 2

Questions **21** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For each questions which require units, give your answers in the units stated. [20 marks]

Do not write in this space

21. Find the value of

a) $\frac{2}{5} \times 40$

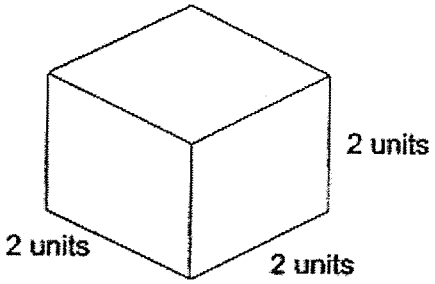
b) $21 \div \frac{3}{7}$

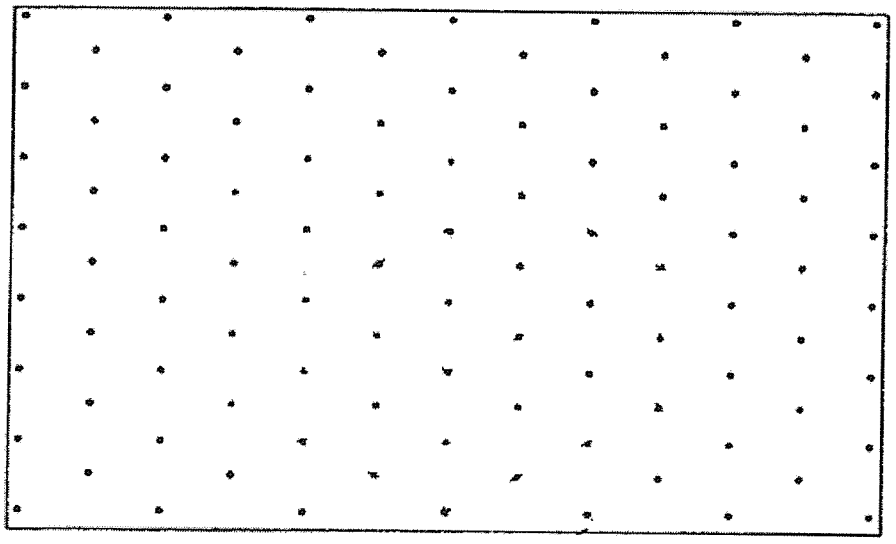
Ans: a) _____

b) _____

22. The figure below shows cube A. Cube A has a volume of 8 cubic units. Draw a cuboid with a volume of 12 cubic units in the isometric grid below.

Cube A

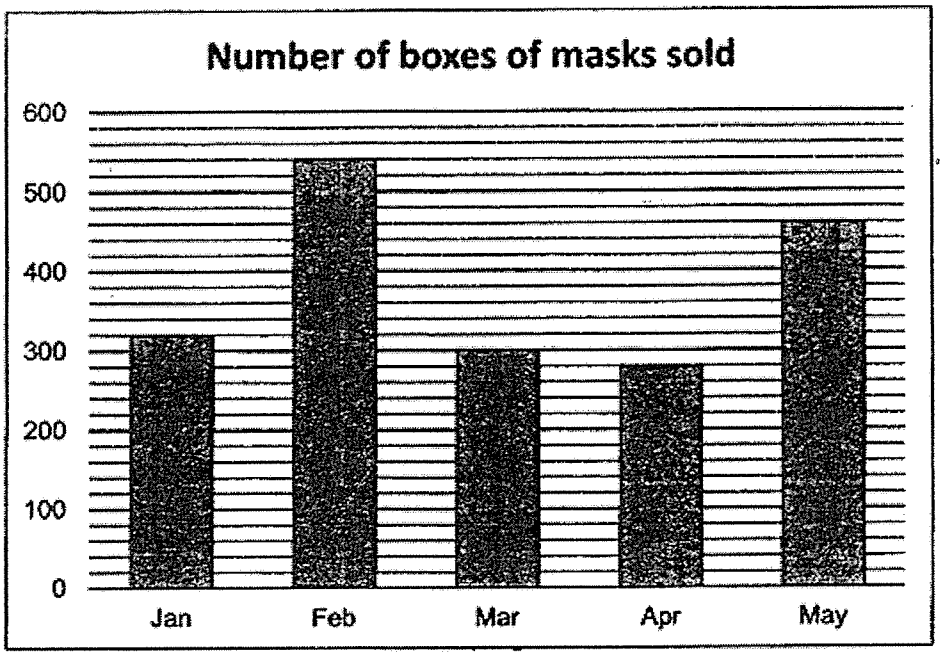




Subtotal	/ 4

*Use the information below to answer Questions **23** and **24**.*

The graph below shows the number of boxes of masks sold in a pharmacy over 5 months.



23. What was the difference in the number of boxes of masks sold between the month with the highest sale and the month with the lowest sale?

Ans : _____

24. What was the average number of boxes of masks sold from Jan to May?

Ans : _____

Do not write in this space

Subtotal	/ 4

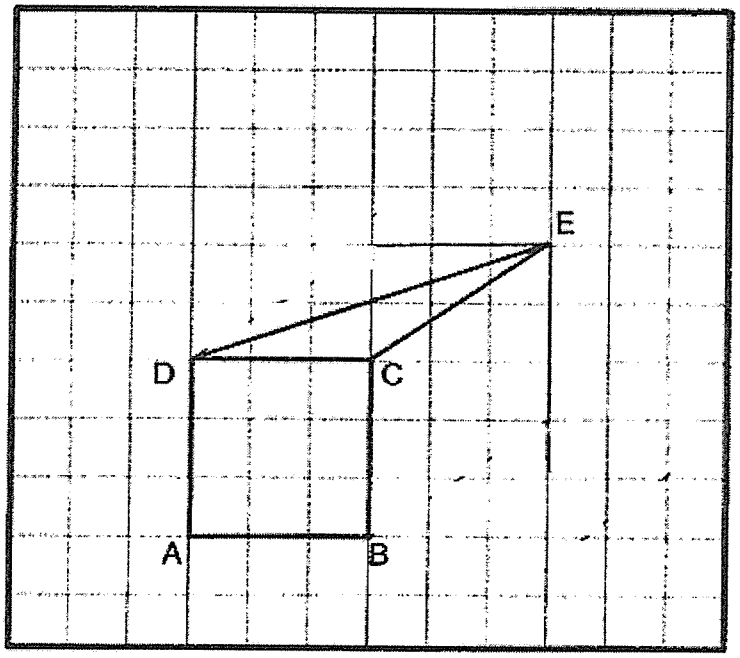
25. What is the missing number in the box?

$$\frac{1}{12} + \frac{1}{12} + \frac{1}{12} + \frac{1}{\square} = 7 \times \frac{1}{12}$$

Ans : _____

Do not write in this space

26. A square ABCD and a triangle CDE are drawn on a square grid.



In the square grid,

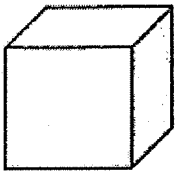
a) draw a parallelogram BCEF.

b) draw another triangle DEG such that it has the same area as triangle CDE and does not overlap triangle CDE.

Subtotal	/ 4

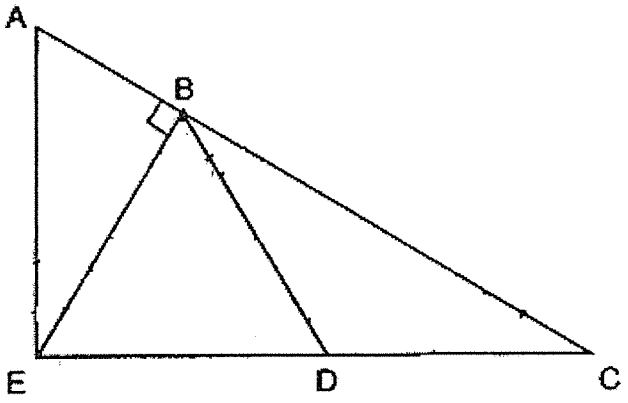
27. The perimeter of one face of a cube is 36 cm.
Find the volume of the cube.

Do not write in this space



Ans : _____ cm^3

28. In the figure, AEC is a right-angled triangle. BDE is an equilateral triangle. BCD is an isosceles triangle with BD = CD.



Each of the statements below is either true, false or impossible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statement	True	False	Not possible to tell
ABE is a right-angled triangle.			
The area of BDE is smaller than the area of BCD.			

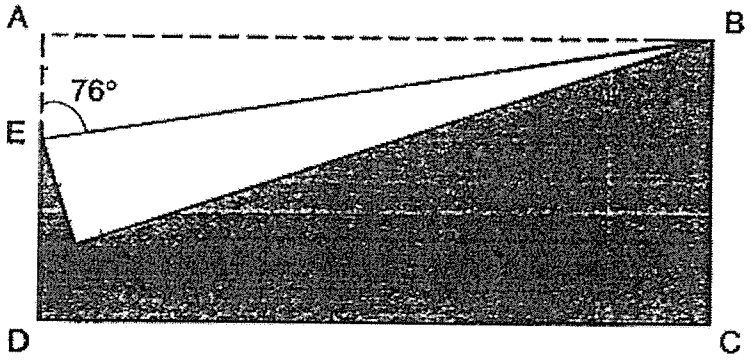
Subtotal	/ 4

29. The average of three numbers is 62. The difference between the greatest number and the smallest number is equal to the middle number. What is the sum of the two smaller numbers?

Do not write in this space

Ans : _____

30. The figure below shows a rectangular piece of paper ABCD. It is folded along the line BE. $\angle AEB = 76°$. Find $\angle FBC$.



Ans: _____ °

Subtotal	/ 4

END OF PAPER

NAN HUA PRIMARY SCHOOL
PRELIMINARY EXAMINATION – 2021
PRIMARY 6

MATHEMATICS
Paper 2

Total Time for Paper 2: 1 hour 30 minutes

INSTRUCTION TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully
4. Answer all questions.
5. Write your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Marks Obtained

Total	Max Mark
	55

Name : _____( )

Class : 6_____

Date : 19 August 2021 Parent's Signature :_____

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the space provided. For questions which require units, give your answers in the units stated.

(10 marks)

1. A jersey cost $26.35. A pair of shorts cost $2.55 less than the jersey. How much did a jersey and a pair of shorts cost?

Do not write in this space

Ans: $ _____

2. Three girls folded a total of 500 hearts for a charity project. Susan folded k hearts. Jiamin folded twice of what Susan folded and Rani folded 10 more hearts than Jiamin. How many hearts did Susan fold?

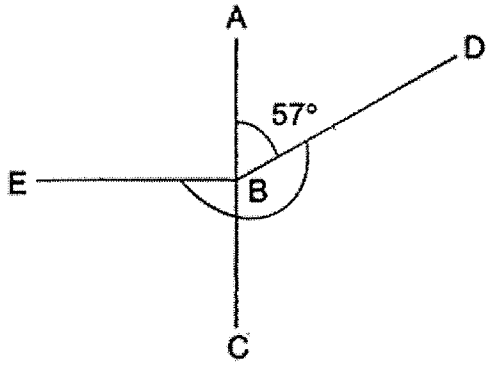
Ans: _____

3. The sum of the greatest and smallest factor of a number is 28. List out all the factors of this number.

Ans: _____

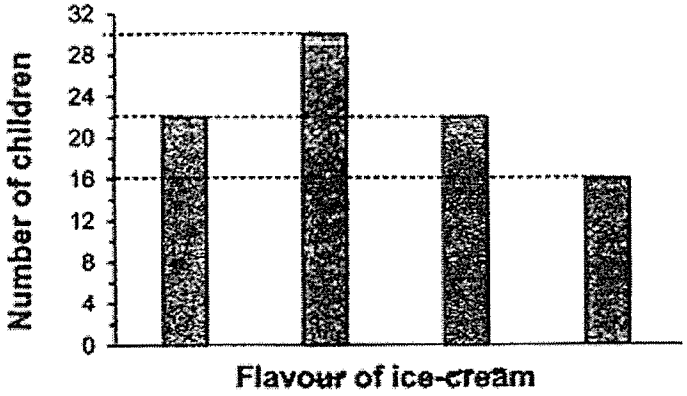
4. In the figure, ABC is a straight line. ∠ABE = ∠CBE. Find ∠EBD.

Do not write in this space



Ans: _____ °

5. A group of children were asked to choose one ice-cream flavour, Chocolate, Vanilla, Strawberry or Mango. The graph below shows the children's choices. The names of the flavours are not shown.



The same number of children chose Vanilla and Mango flavour. The number of children who chose Strawberry flavour was the least. What fraction of the children chose Chocolate flavour? Leave your answer in the simplest form.

Ans: _____

For questions from **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

6. A watch cost \$315 at a sale after a discount of 30% excluding GST.

(a) What was the price of the watch before discount?

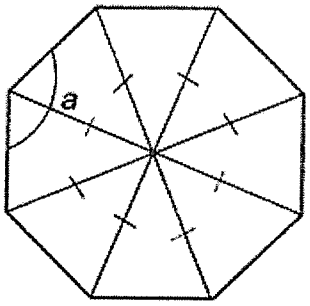
(b) Mr Tan bought the watch during the sale. How much did Mr Tan pay for the watch inclusive of 7% GST?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [1]

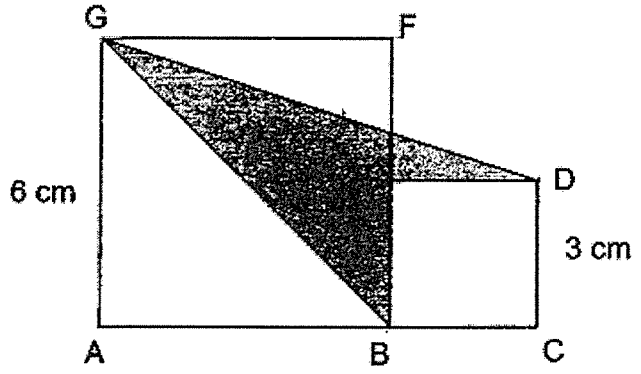
7. The figure below is made up of identical isosceles triangles. Find $\angle a$.



Ans: _____ [3]

8. ABFG and BCDE are squares. Find the area of the shaded region.

Do not write in this space



Ans: _____ [3]

9. Beatrice had 396 green beads and some yellow beads. She used the same number of green and yellow beads to make a bracelet. The ratio of the number of green beads left to the number of yellow beads left was 3 : 5.

Do not write in this space

(a) Each of the statements below is either true, false or not possible to tell from the information given in the question above. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
There were more yellow beads than green beads at first.			
The number of yellow beads at first was a multiple of 5.			

[2]

(b) If 60% of the beads were used, how many beads were there at first?

Ans: (b)_____ [3]

10. The table below shows Raja's test scores for four different subjects. Part of the page had been torn off.

Do not write in this space

English	Chinese	Mathematics	Sc
72	81	9	

Raja's score for Science was 5 marks lower than his score for Mathematics.

(a) What was Raja's lowest possible score for Science?

(b) What was Raja's highest possible average score for the four subjects?

Ans: (a) _____ [1]

(b) _____ [3]

11. Country A aims to vaccinate $\frac{2}{3}$ of her total citizens. 25% of the total citizens cannot be vaccinated due to medical reasons.

(a) What fraction of the citizens in Country A can go for vaccination?
(b) What fraction of the citizens who can go for vaccination needs to be vaccinated in order for country A to achieve her aim?

Do not write in this space

Ans: (a) _____ [1]

(b) _____ [2]

12. The table below shows the parking charges at a car park.

Do not write in this space

Time	Charge
8 a.m. to 6 p.m.	\$1.20 per $\frac{1}{2}$ hour
After 6 p.m.	\$3.00 per entry

(a) Mr Tan parked his car at the car park from 9.15 a.m. to 11.00 a.m. on the same day. How much did Mr Tan pay?

(b) Mr Lee left the car park at 9 p.m. He paid a total of \$12.60. What was the earliest possible time he entered the car park?

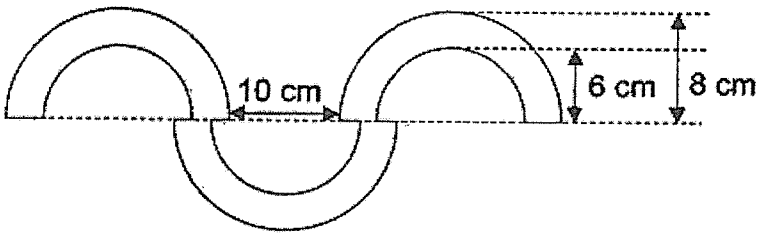
Ans: (a) _____ [1]

(b) _____ [2]

13. The figure below is made up of straight lines and semi-circles of radii 6 cm and 8 cm. Using the calculator value of π,

(a) find the area of the figure.

(b) find the perimeter of the figure.
Round your answers to 2 decimal places.



Do not write in this space

Ans: (a) _____ [2]

(b) _____ [3]

14. A pack of trading cards contained 7 normal cards and 2 special cards. Weihua and John each bought a box of 40 packs of card. After opening their cards, they decided to trade with each other for the cards they wanted. 3 normal cards were traded for each special card. After trading, Weihua was left with a total of 384 cards.

(a) How many cards did John have in the end?

(b) How many special cards did Weihua have in the end?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

15. A tank was filled with some water. A tap was turned on and water flowed into the tank at a constant rate. After some time, another tap was turned on. Both taps were turned off after the tank was filled to the brim. The line graph shows the volume of water in the tank over this period of time.

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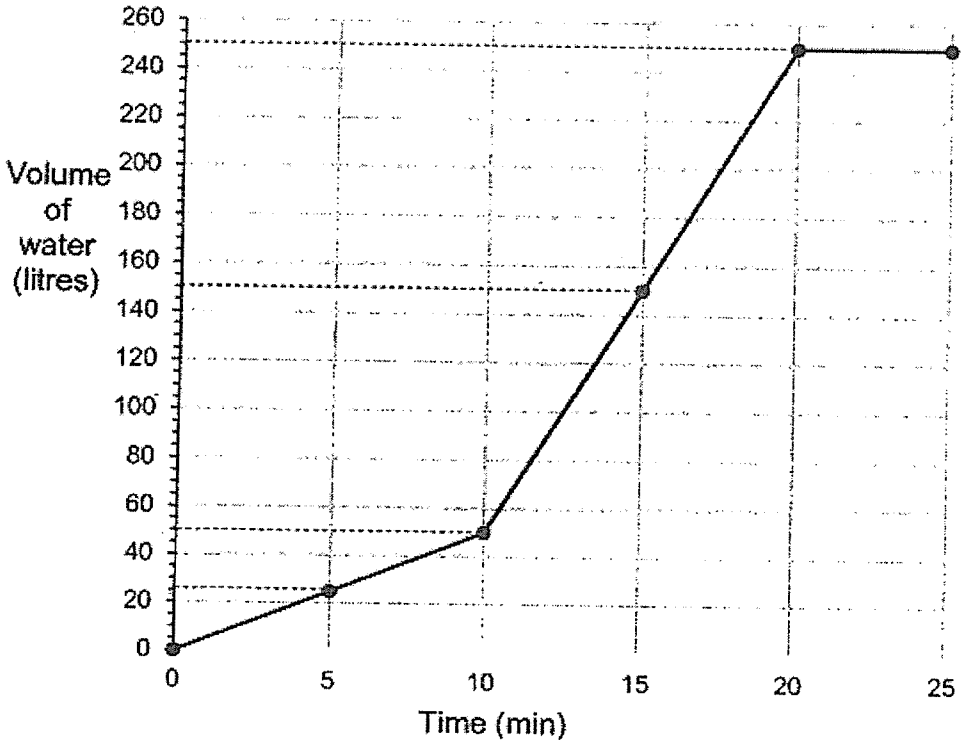


(a) At which minute was the second tap turned on?

(b) How many litres of water flowed out from the second tap every minute?

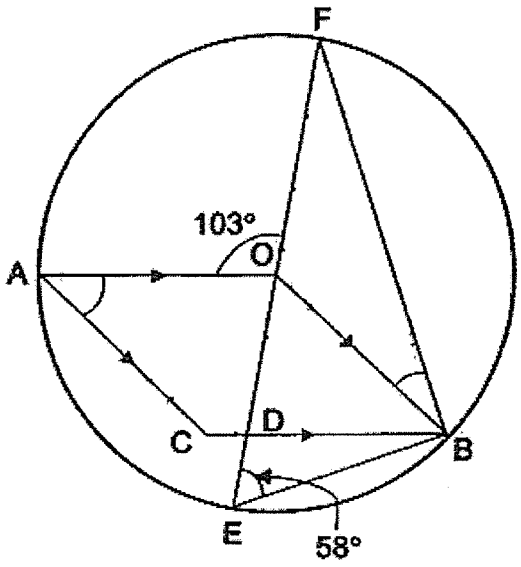
Ans: (a) _____ [1]

(b) _____ [2]

16. In the figure below, Point O is the centre of the circle.

EOF is a straight line. AOBC is a rhombus. ∠FEB = 58°. ∠AOF = 103°.

Do not write in this space



(a) Find ∠FBO.

(b) Find ∠OAC.

Ans: (a) _____ [3]

(b) _____ [1]

17. White squares and black squares are used to form a pattern. The first four figures are shown below.

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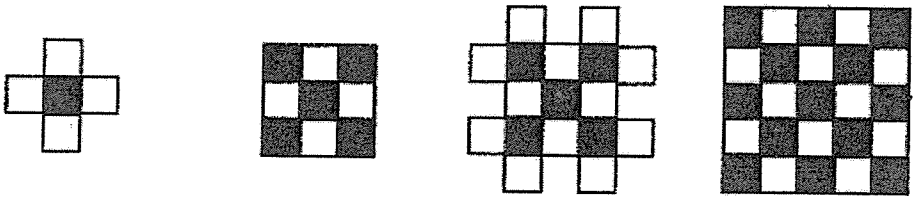


Figure 1 Figure 2 Figure 3 Figure 4

(a) The table below shows the number of white squares and black squares for the first four figures. Complete the table for Figure 5.

Figure Number	**1**	**2**	**3**	**4**	**5**
Number of black squares	1	5	5	13	13
Number of white squares	4	4	12	12	(i)
Total number of squares	5	9	17	25	(ii)

(b) How many white squares are there in figure 10?

(c) A figure in the pattern has a total of 441 black and white squares. What is the Figure Number?

Ans: a) (i) _____

(ii) _____ [1]

b) _____ [2]

c) _____ [2]

--------- End of Paper 2 ---------

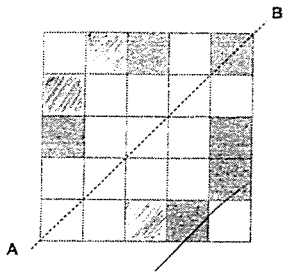
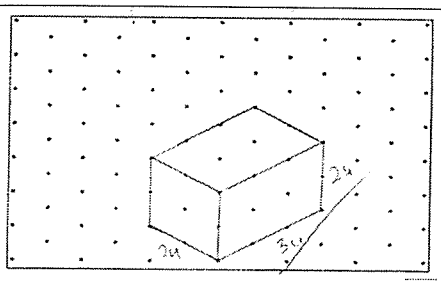
SCHOOL : NAN HUA PRIMARY SCHOOL

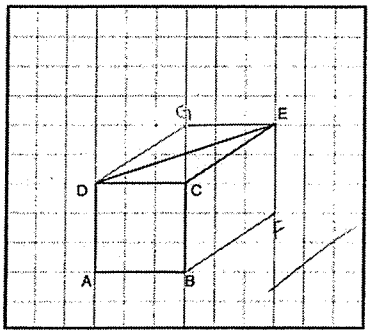
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 PRELIM

BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	2	1	1	1	2	3	4	1	3
Q 11	Q12	Q13	Q14	Q15					
2	1	2	3	4					

BOOKLET B

Q16)	$120
Q17)	8.02
Q18)	Cinema
Q19)	
Q20)	76 – 18 – 18 = 40 cm
Q21)	(a) 16 (b) 49
Q22)	

Q23)	**540 – 280 = 260**
Q24)	(320+540+300+280+460) ÷ 5 = 1900 ÷ 5 **= 380**
Q25)	**3**
Q26)	
Q27)	36 ÷ 4 = 9cm 9 x 9 x 9 = **729 cm^3**
Q28)	**True , False**
Q29)	62 x 3 = 186 186 ÷ 6 = 31 31 x 3 = **93**
Q30)	∠ABE = 180° – 90° – 76° = 14° ∠FBC = 90° – 14° – 14° = **62°**
Q1)	$26.35 - $2.55 = $23.80 $23.80 + $26.35 = **$50.15**
Q2)	k + 2k + 2k +10 = 5k + 10 5k + 10 = 500 5k = 500 – 10 = 490 k = 490 ÷ 5 = **98**
Q3)	Smallest factor = 1 Greatest factor = 28 – 1 = 27 1 x 27

	3 x 9 **Factors of number: 1, 3, 9 and 27**
Q4)	$\angle DBC = 180° - 57° = 123°$ $\angle EBC = 180° \div 2 = 90°$ $\angle EBD = 123° + 90° = \mathbf{213°}$
Q5)	Total children: $22 + 30 + 22 + 16 = 90$ $\frac{30}{90} = \frac{1}{3}$
Q6)	a) $70\% \rightarrow 315$ $1\% \rightarrow \frac{315}{70}$ $100\% \rightarrow \frac{315}{70} \times 100 = \mathbf{\$450}$ b) $100\% \rightarrow 315$ $100\% + 7\% = 107\%$ $107\% \rightarrow \frac{315}{100} \times 107 = \mathbf{\$337.05}$
Q7)	$360° \div 8 = 45°$ $\angle a = 180° - 45° = \mathbf{135°}$
Q8)	Area of rectangle: $6 \times (6 + 3) = 54\ cm^2$ Area of $\triangle AGB$: $\frac{1}{2} \times 6 \times 6 = 18\ cm^2$ Area of $\square$ BCDE $= 3 \times 3 = 9\ cm^2$ Area of extended $\triangle GDH$: $\frac{1}{2} \times 9 \times 3 = 13.5\ cm^2$ $54 - 18 - 9 - 13.5 = \mathbf{13.5cm^2}$
Q9)	**a) True, Not possible to tell** b) $100\% - 60\% = 40\%$ (left) $8u \rightarrow 40\%$ $1u \rightarrow 5\%$ $3u \rightarrow 15\%$ (green left)

	60% ÷ 2 = 30% (green used) 30% + 15% = 45% 45% → 396 (green) 100% → $\frac{396}{45}$ x 100 = **880 beads**
Q10)	a) 90 – 5 = **85** b) Math: 99 Science 99 – 5 = 94 (99 + 94 + 81 + 72) ÷ 4 = 346 ÷ 4 = **86.5 marks**
Q11)	a) 100% - 25% = 75% $\frac{75}{100} = \frac{3}{4}$ b) $\frac{2}{3} = \frac{8}{12}$ (aim to vaccinate) $\frac{1}{4} = \frac{3}{12}$ (cannot vaccinate) $1 - \frac{3}{12} = \frac{9}{12}$ (can vaccinate) $\frac{8}{12} \div \frac{9}{12} = \frac{8}{9}$
Q12)	a) 9.15 a.m. to 11 a.m. = 1h 45 min 4 x $1.20 = **$4.80** b) $12.60 - $3 = $9.60 $9.60 ÷ $1.20 = 8 8 x $\frac{1}{2}$ = 4h **Ans: 2 p.m.**
Q13)	a) Area of big $\frac{1}{2}$ circle = $\frac{1}{2}$ x π x 8^2 = 32π cm^2 Area of small $\frac{1}{2}$ circle = $\frac{1}{2}$ x π x 6^2 = 18π cm^2 32π - 18π = 14π 14π x 3 = 42π cm^2 = **131.95 cm^2**

	b) Arc of big $\frac{1}{2}$ circle $= \frac{1}{2} \times \pi \times 16 = 8\pi$ cm Arc of small $\frac{1}{2}$ circle $= \frac{1}{2} \times \pi \times 12 = 6\pi$ cm $8\pi \times 3 = 24\pi$ $6\pi \times 3 = 18\pi$ $24\pi + 18\pi + (4 \times 2) = 42\pi + 8 =$ **139.95 cm**
Q14)	a) $7 + 2 = 9$ $40 \times 9 = 360$ cards each $360 \times 2 = 720$ $720 - 384 =$ **336 cards** b) $360 - 336 = 24$ (John lack) $24 \div 2 = 12$ (cards John traded for special card) $40 \times 2 = 80$ $80 - 12 =$ **68 cards**
Q15)	**a) 10 min** b) Tap A: 5 min → 25 ℓ 1 min → 25$\ell \div 5 = 5\ \ell$ A and B: 150 ℓ - 50 ℓ = 100 ℓ in 5 min 1 min → 100$\ell \div 5 = 20\ \ell$ Tap B: 20ℓ - 5 ℓ = **15 ℓ**
Q16)	a) $\angle AOE = 180° - 103° = 77°$ $\angle EOB = 180° - 58° - 58° = 64°$ $\angle FOB = 360° - 103° - 77° - 64° = 116°$ **$\angle FBO = (180° - 116°) \div 2 = 32°$** b) **$\angle OAC = 180° - 77° - 64° = 39°$** (interior angles. AC // OB)
Q17)	(a)(i) $12 + 12 =$ **24** (a)(ii) $13 + 34 =$ **37**

	(b)	Figure 10 (even number) Total squares: $(10 + 1^2) = 121$ White squares: $(121 - 1) \div 2 = \mathbf{60}$
	(c)	$\sqrt{441} = 21$ Figure Number $= 21 - 1 = \mathbf{20}$

Founded 1947

南侨小学

NAN CHIAU PRIMARY SCHOOL

PRELIMINARY EXAMINATION

2021

MATHEMATICS

PAPER 1 BOOKLET A

PRIMARY 6

Name: _____ ( ) Marks: ⁄ 20

Class: Pr 6_____ Time: 1 hour (Booklets A & B)

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

1. Do not turn over the page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

*This paper consists of **6** pages altogether.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice and shade your answer (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

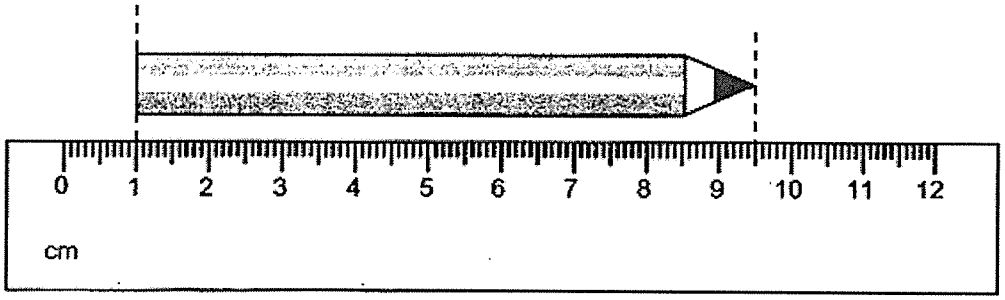
1 Which one of the following is five million, one hundred and twenty thousand in numerals?

(1) 5 000 120
(2) 5 100 200
(3) 5 102 000
(4) 5 120 000

2 Which one of the following is the same as 30 kg 70 g?

(1) 3070 g
(2) 3700 g
(3) 30 070 g
(4) 30 700 g

3 What is the length of the pencil?

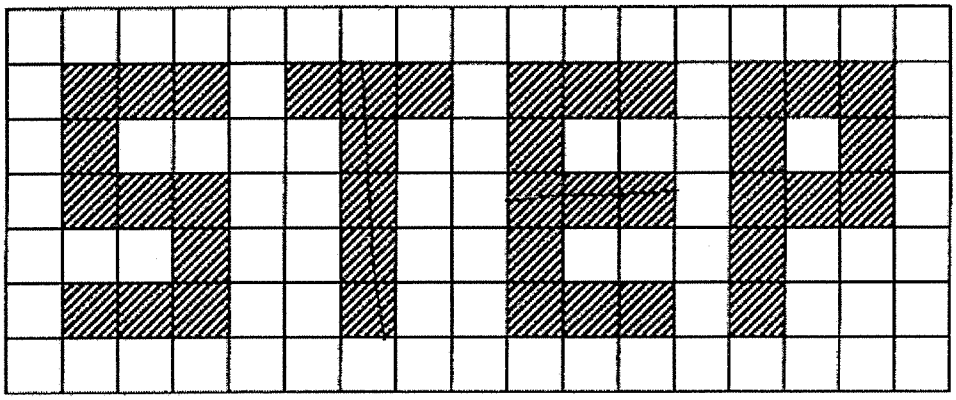


(1) 1.5 cm
(2) 8.5 cm
(3) 9.5 cm
(4) 10.5 cm

4 Which one of the following would most likely be the mass of a mobile phone?

(1) 16 g
(2) 160 g
(3) 1.6 kg
(4) 16 kg

5 Four letters are shown on a square grid.



How many of the letter(s) has/ have a line of symmetry?

(1) 1
(2) 2
(3) 3
(4) 4

6 Express $3\frac{1}{20}$ as a decimal.

(1) 3.05
(2) 3.1
(3) 3.12
(4) 3.5

7 Simplify $5w + 10 - 4w - 8$

(1) $w + 2$

(2) $w + 18$

(3) $9w + 2$

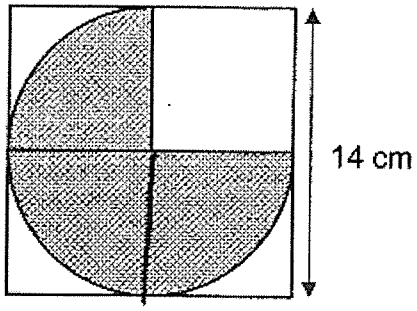
(4) $9w + 18$

8 Arrange these distances from the longest to the shortest.

2 km 305 m	2.35 km	$2\frac{3}{5}$ km

	Longest				Shortest
(1)	2 km 305 m	,	2.35 km	,	$2\frac{3}{5}$ km
(2)	2.35 km	,	$2\frac{3}{5}$ km	,	2 km 305 m
(3)	$2\frac{3}{5}$ km	,	2 km 305 m	,	2.35 km
(4)	$2\frac{3}{5}$ km	,	2.35 km	,	2 km 305 m

9 The figure is formed by a square, a semi-circle and a quarter circle. Find the area of the shaded parts. Take $\pi = \frac{22}{7}$.



(1) 33 cm^2

(2) 38.5 cm^2

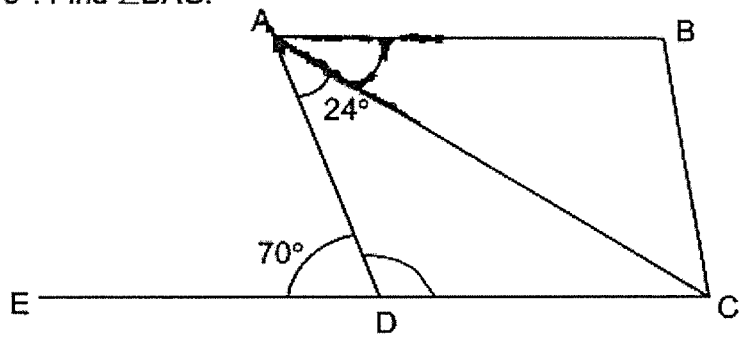
(3) 115.5 cm^2

(4) 154 cm^2

10 In a shop, the average number of T-shirts sold in 3 months was 28. In the first month, 13 T-shirts were sold. The difference between the number of T-shirts sold in the second month and the number of T-shirts sold in the third month is the smallest possible. The number of T-shirts sold in the third month was fewer than the number of T-shirts sold in the second month. How many T-shirts were sold in the third month?

(1) 7
(2) 14
(3) 35
(4) 70

11 The figure below shows a trapezium ABCD. EDC is a straight line and AB // DC. $\angle DAC = 24°$ and $\angle ADE = 70°$. Find $\angle BAC$.



(1) 24°
(2) 35°
(3) 46°
(4) 55°

12 $\frac{1}{4}$ of a bar is painted blue and $\frac{1}{2}$ of the remaining bar is painted yellow. What fraction of the bar is painted?

(1) $\frac{1}{4}$
(2) $\frac{3}{8}$
(3) $\frac{5}{8}$
(4) $\frac{3}{4}$

13 Gladys had the following types of coins in her purse.

Types of coins	Number of coins
5¢	2
10¢	1
20¢	2
50¢	1
$1	1

She took out 3 coins from her purse and placed them into a donation can. Which one of the following amounts could **not** be the amount taken out of her purse?

(1) $1.25
(2) $0.90
(3) $0.75
(4) $0.55

14 There are some red and blue markers in a pencil case. The table below shows the number of permanent and non-permanent markers.

Type	Permanent	Non-permanent
Red Markers	9	16
Blue Markers	8	32

Based on the information given in the table, which one of the following statements is correct?

(1) There are 17 permanent blue markers.

(2) The number of permanent red markers is 36% of the total number of red markers.

(3) The total number of blue markers is fewer than the total number of red markers.

(4) The ratio of the number of non-permanent blue markers to the number of permanent blue markers is 1 : 4.

15 A table with 4 columns is filled with numbers in a certain pattern. The first 4 rows of the table are shown below.

	Column A	Column B	Column C	Column D
Row 1	1	2	3	4
Row 2	8	7	6	5
Row 3	9	10	11	12
Row 4	16	15	14	13
⋮	⋮	⋮	⋮	⋮

In which column will number 123 appear?

(1) Column A
(2) Column B
(3) Column C
(4) Column D

End of Paper 1 Booklet A

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PRELIMINARY EXAMINATION

2021

MATHEMATICS

PAPER 1 BOOKLET B

PRIMARY 6

Name: _____ Marks: ___/25

Class: Pr 6_____ Time: 1 hour (Booklets A & B)

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

1. Do not turn over the page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

*This paper consists of **7** pages altogether.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

16 Find the value of 1065 – 98

Ans: _____

17 Find the value of 3 ÷ 7. Give your answer correct to 2 decimal places.

Ans: _____

18 Write down all the common multiples of 6 and 8 that are smaller than 50.

Ans: _____

Score: _____

Do not write in this space

19 What is the value of $\frac{8k + 6}{6}$ when $k = 9$?

Ans: _____

20 At a fruit stall, the price of an orange is $\frac{3}{7}$ of the price of a mango. The price of an apple is half the price of an orange. What is the ratio of the price of an orange to the price of a mango to the price of an apple?

Ans: _____

Score: _____

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

21 Meiling is 45 kg. She is 400 g heavier than her sister. What is her sister's mass in kg?

Ans: _____ kg

22 The table shows the charges of a photograph printing shop.

For the first two 5R photographs	$3 each
Subsequent 5R photographs	$2 each

Janet printed some 5R photographs. She paid a total of $30 for the 5R photographs. How many 5R photographs did she print?

Ans: _____

23 A wire measuring 24 m long is bent to form two triangles as shown. The length used to make the big triangle is twice the length used to make the small triangle. What is the length of the wire used to make the big triangle?

Ans: _____ m

Score: _____

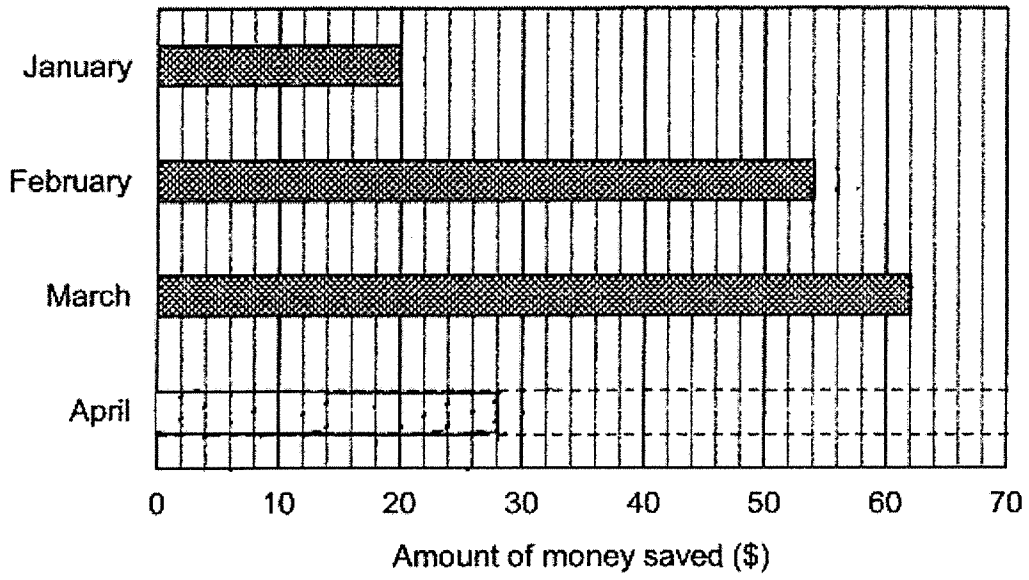
Do not write in this space

Use the table and bar graph below to answer questions 24 and 25.

Muthu received the same amount of allowance each month from January to April. The table below shows the amount of money Muthu spent from January to April.

Months	Amount of money spent
January	$80
February	$46
March	$38
April	$72

The amount of money saved is represented by the bar graph below. The bar for the amount of money saved in April has not been drawn.



24 Draw the bar for the amount of money saved in April in the bar graph above.

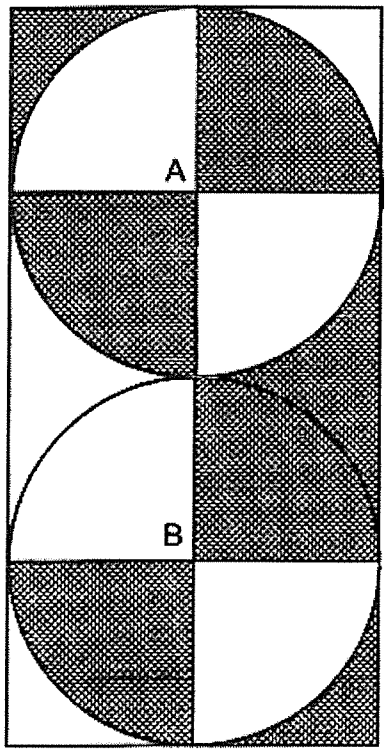
25 What percentage of his total allowance received from January to April did Muthu spend?

Ans: _____ %

Score:

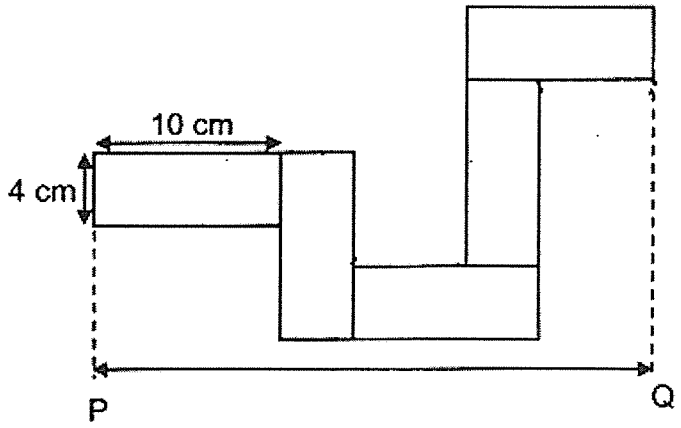
Do not write in this space

26 The figure shows 2 identical circles in a rectangle. A and B are centres of the circles. What fraction of the figure is shaded? Give your answer in the simplest form.



Ans: _____

27 The figure below is made up of 5 identical rectangles, with no overlap. Each rectangle measures 10 cm by 4 cm. What is the length of line PQ?

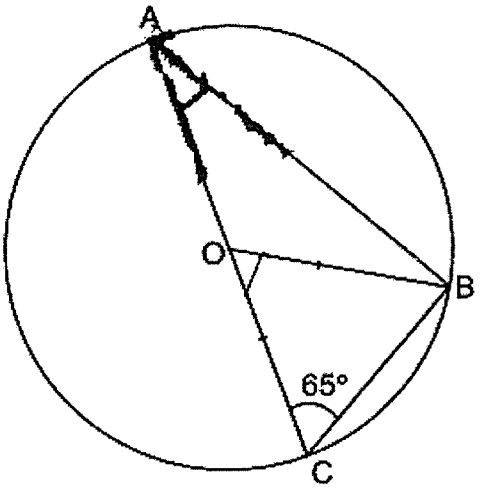


Ans: _____ cm

Score: _____

Do not write in this space

28 In the figure, O is the centre of a circle and ABC is a triangle. $\angle BCA = 65°$. Find $\angle BAC$.



Ans: _____ °

29 The table below shows the number of fans owned by each household in a block. Part of the table is covered by ink blot. There are 58 households who owned at least 2 fans.

Number of fans	0	1	2	3	4
Number of households	5	9			8

Each statement below is either true, false or not possible to tell. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
There were 72 households in the block.			
9 households owned at least 1 fan.			
The number of households who owned 2 fans was equal to the number of households who owned 3 fans.			

Score: _____

30 Jasmine had a box of red and white beads. $\frac{3}{4}$ of the total number of beads were red. Jasmine used $\frac{5}{9}$ of the number of red beads and some white beads to make a necklace. She used $\frac{1}{2}$ of the total number of beads to make the necklace. What fraction of the number of white beads did she use to make the necklace?

Do not write in this space

Ans: _____

End of Paper 1 Booklet B

Score: _____

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NAN CHIAU PRIMARY SCHOOL

PRELIMINARY EXAMINATION

2021

MATHEMATICS PAPER 2

PRIMARY 6

Name: _____ ( ) Marks: /55

Class: Pr 6_____ Time: 1 h 30 min

Date: 20 August 2021 Parent's Signature: _____

Instructions to Students:

1. Do not turn over the page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is allowed.

Total Marks: /100

*This paper consists of **15** pages altogether.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1 A jug contained 2 litres of lime juice. Freya poured equal amount of lime juice into several glasses. She poured $\frac{3}{8}$ litres of lime juice into each glass. What is the most number of glasses of lime juice she could have?

Ans: _____

2 The number of visitors to a gallery was 9000 in February. This was a 20% increase from the number of visitors in January. How many visitors were there in January?

Ans: _____

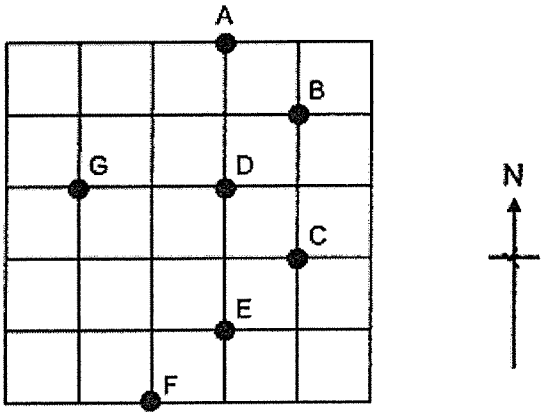
Score: _____

3 A rectangular tank of height 2 m has a square base of side 80 cm. What is the volume of water in the tank when it is $\frac{1}{4}$ – filled with water?

Do not write in this space

Ans: _____ m^3

4 The square grid shows the positions of A, B, C, D, E, F and G.



(a) Susan walked directly from point F to point C in a straight line. In which direction did she walk?

(b) Ali stood at one of the points facing point G. After he turned 45° clockwise, he faced point D. Which point was Ali at?

Ans: (a) _____

(b) Point _____

Score: _____

5 The table below shows the number of electronic gadgets sold by Mr Tan in four months.

Do not write in this space

Months	Number of electronic gadgets sold
August	156
September	132
October	148
November	?

In order for Mr Tan to qualify for the yearly 'Best Salesman Award', he has to sell an average of 170 electronic gadgets for 3 out of the 4 months. What is the least number of electronic gadgets that he has to sell in November in order to qualify for that award?

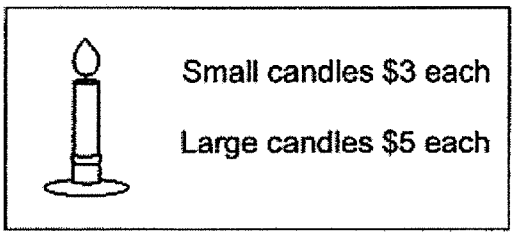
Ans: _____

Score: _____

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in the bracket [ ] at the end of each question or part–question. (45 marks)

Do not write in this space

6 The prices of two sizes of candles at a shop are shown below.



Sarah bought an equal number of small candles and large candles. She spent $120 altogether. How many candles did she buy altogether?

Ans: _____ [3]

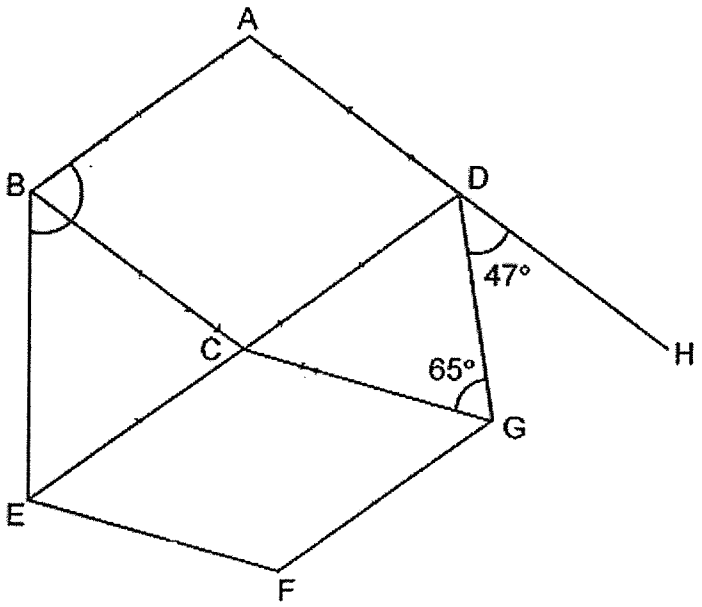
7 When Taps X and Y are turned on at the same time, they can fill up a tank completely in 6 minutes. Tap X alone will take 10 minutes to fill up the tank completely. How long will it take for Tap Y alone to fill up the tank completely?

Ans: _____ [3]

Score: _____

8 In the figure below, ABCD and CEFG are rhombuses. ADH and ECD are straight lines and BC = CE. ∠CGD = 65°. ∠GDH = 47°.
Find ∠ABE.

Do not write in this space

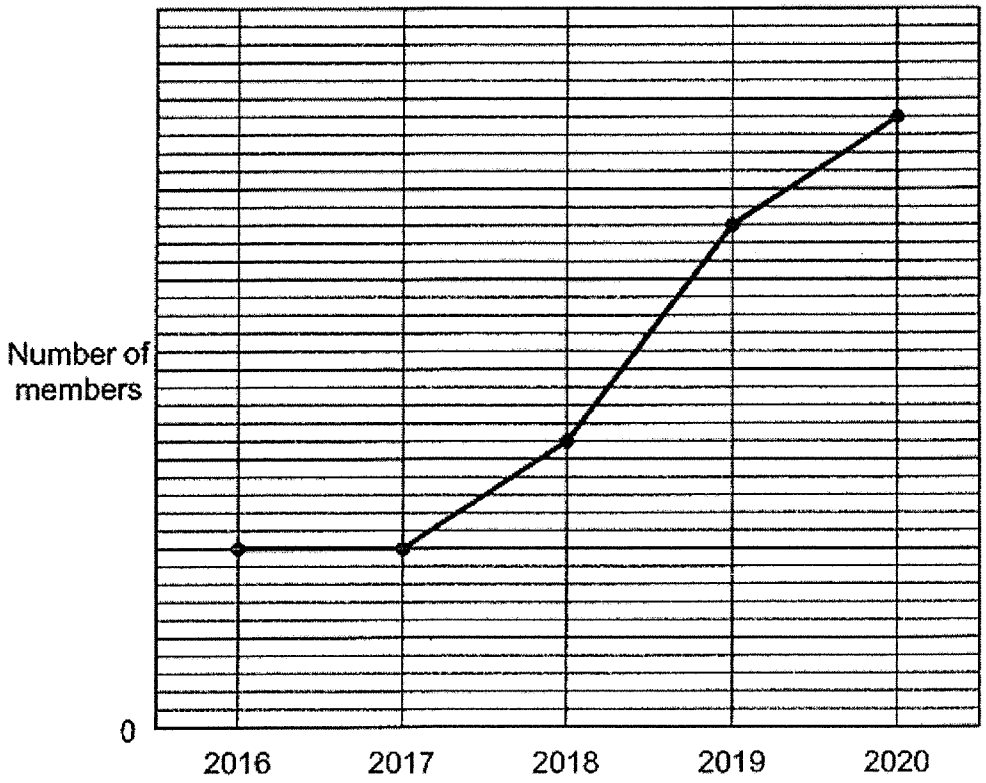


Ans: _____ [3]

Score:

9 The line graph shows the number of members in a club at the end of each year from 2016 to 2020. The number of members is not shown on the scale.

Do not write in this space



(a) In which year did the number of members increase the most compared to the previous year?

(b) From 2016 to 2020, what was the percentage increase in the number of members?

Ans: (a) _____ [1]

(b) _____ [2]

Score: _____

Do not write in this space

10 The number of workers in Factory A was $\frac{4}{7}$ of the number of workers in Factory B. When 36 workers transferred from Factory B to Factory A, both factories had the same number of workers.

(a) How many more workers were in Factory B than in Factory A at first?

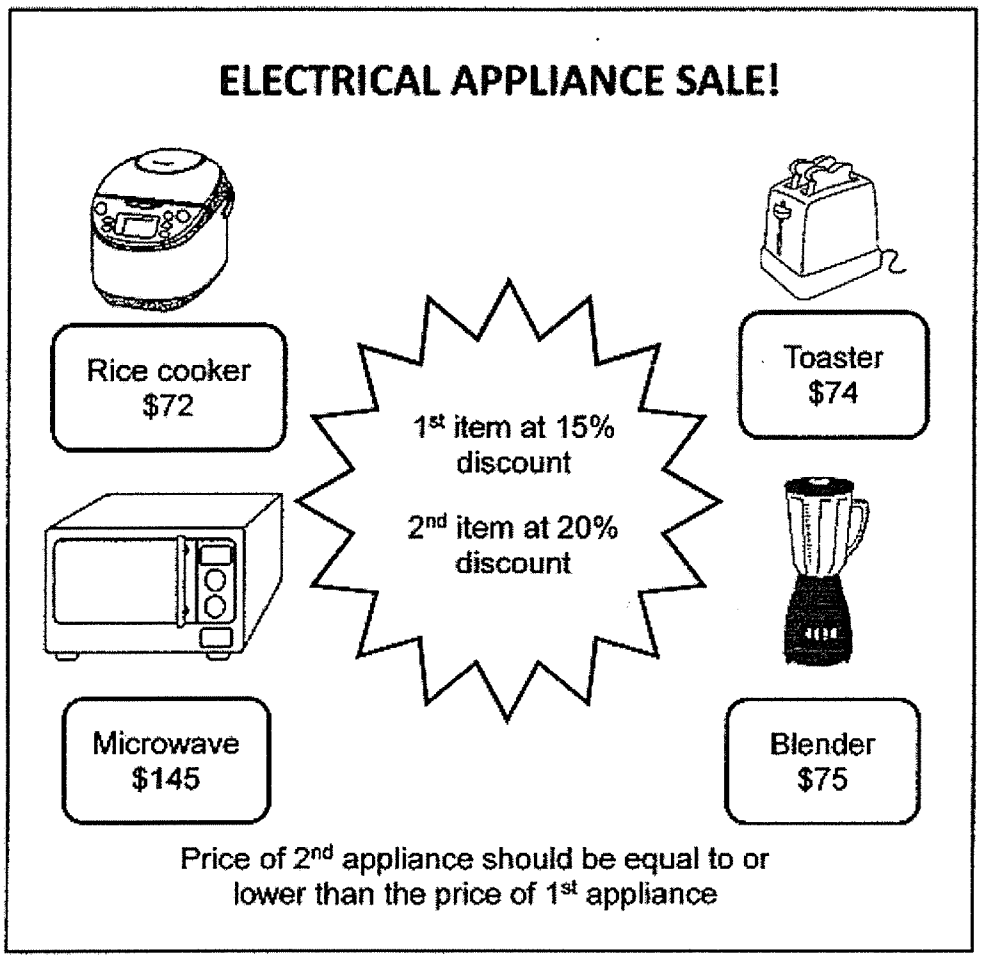
(b) How many workers were there altogether?

Ans: (a) _____ [2]

(b) _____ [1]

Score: _____

11



Mrs Rahman bought two different electrical appliances. The total discount she received for the two items was $26.05. How much did she spend?

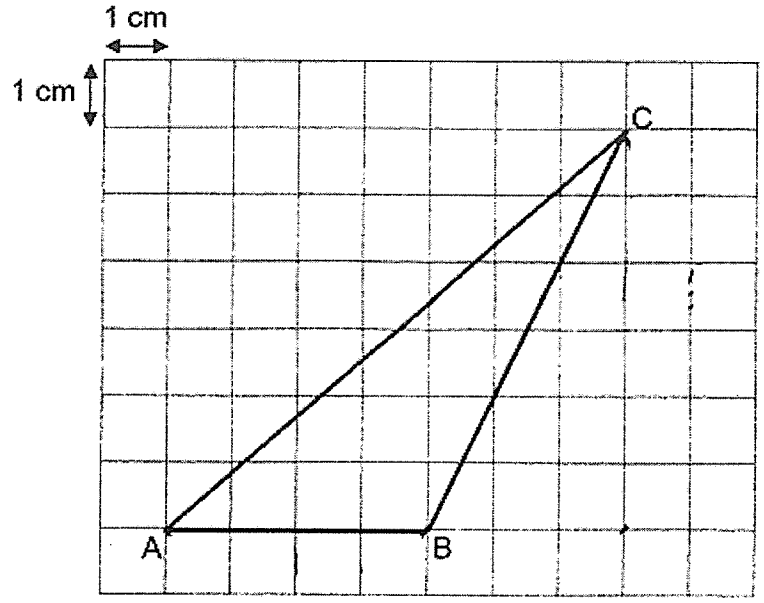
Ans: _____ [3]

Do not write in this space

Score:

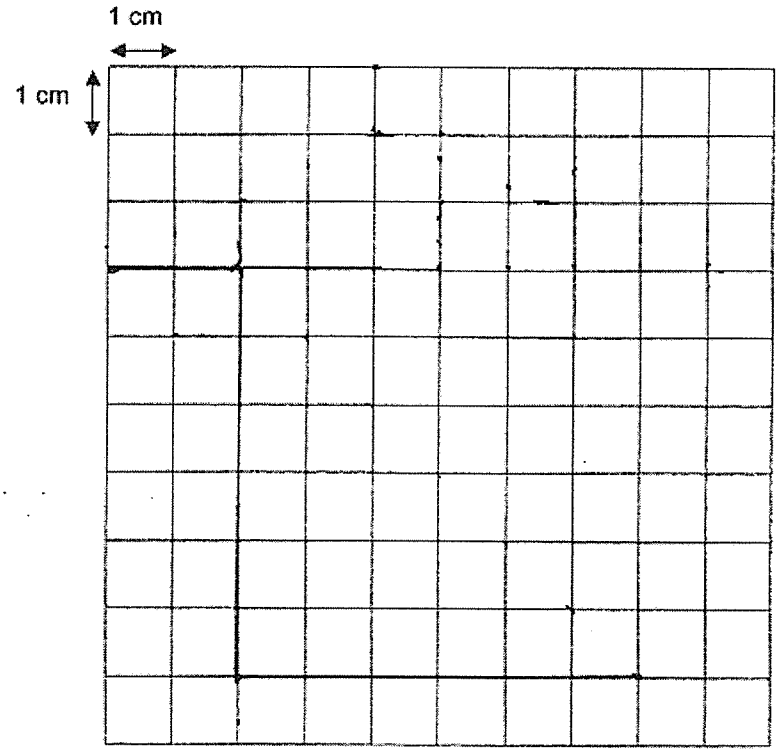
Do not write in this space

12 The figure below shows a Triangle ABC drawn on a square grid.



(a) Find the area of Triangle ABC.

(b) Draw an isosceles Triangle XYZ on the square grid below.
The ratio of the area of isosceles Triangle XYZ to the area of the above Triangle ABC is 3 : 2. [3]



Ans: (a) _____ [1]

Score:

13 Sam received \$0.90 more pocket money than John every day. They each spent \$1.80 per day and saved the rest of their pocket money. After many days, John saved \$74.40 and Sam saved \$130.20.

Do not write in this space

(a) How many days did John take to save \$74.40?

(b) How much pocket money did both boys receive altogether each day?

Ans: (a) _____ [2]

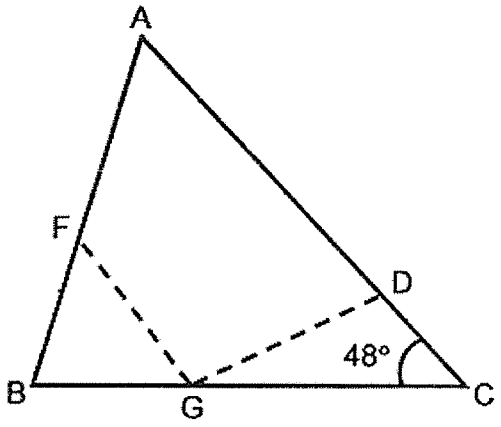
(b) _____ [2]

Score:

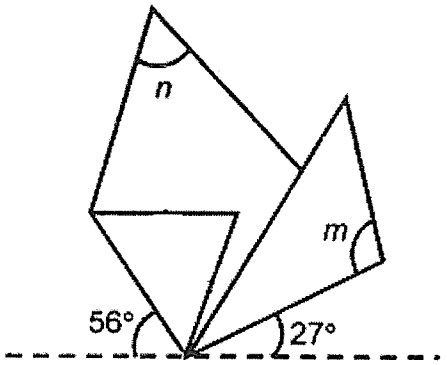
Do not write in this space

14 Alice has a triangular piece of paper ABC. She folded it along the lines FG and DG as shown below. BGC is a straight line. BF = BG.

(a) Find $\angle m$.
(b) Find $\angle n$.



Before folding



After folding

Ans: (a) _____ [2]

(b) _____ [2]

Score: _____

15 Celina spent $\frac{5}{9}$ of her money on 36 cupcakes and 32 muffins. The price of one cupcake was thrice as much as the price of one muffin. She then used $\frac{1}{6}$ of her money to buy more cupcakes. She spent a total of $187.50 on all the cupcakes. How much did she spend on the muffins?

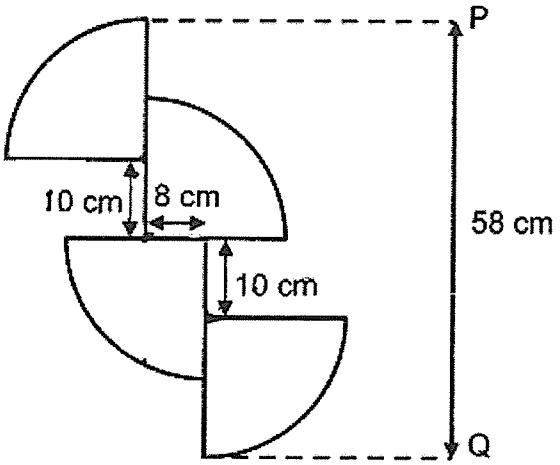
Do not write in this space

Ans: _____ [5]

Score: ☐

16 The figure is formed by 4 identical quarter circles. PQ is 58 cm.

Do not write in this space

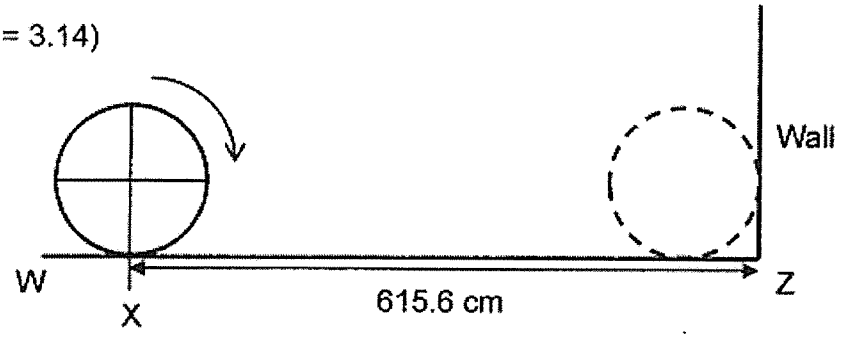


(a) Find the radius of the quarter circle.

(b) Find the perimeter of the figure.

(c) A circular wheel is formed by the 4 identical quarter circles. The wheel turned along the straight line WZ and reached the wall as shown below. The distance between point X and point Z is 615.6 cm. How many turns did the wheel make?

(Take $\pi = 3.14$)



Ans: (a) _____ [1]

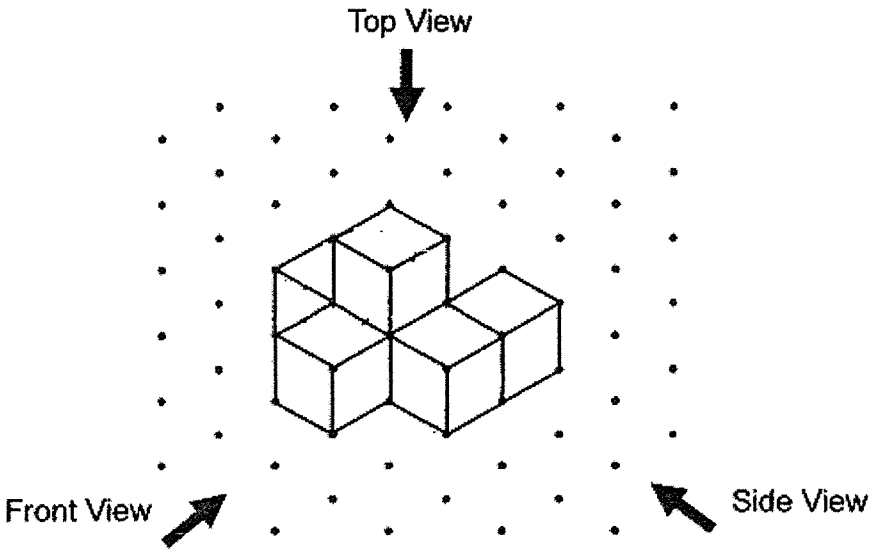
(b) _____ [2]

(c) _____ [2]

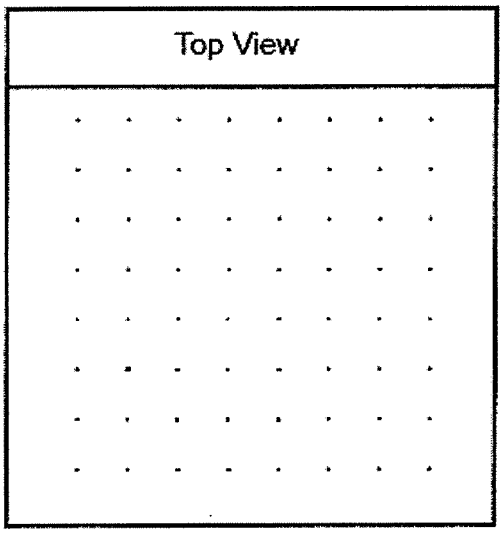
Score: _____

Do not write in this space

17 Megan stacked six 1-cm cubes together to form the solid below.



(a) Draw the top view of the solid in the grid below. [1]
Drawing of the top view is as seen from the front view only.



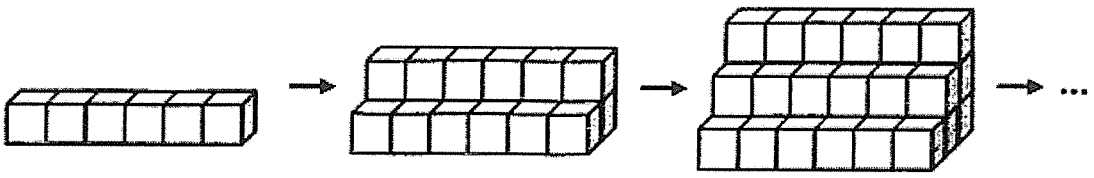
(b) Megan painted the whole solid, including the base, red. How many of the 6 cubes had exactly four of their faces painted red?

Ans: (b) _____ [1]

Score: _____

Do not write In this space

(c) Megan rearranged the cubes to form the following figure. She wanted to build a set of steps with more 1-cm cubes. The figures below show how she built the steps.



If Megan continued building the steps in this way, what would be the height of the set of steps that had 168 cubes?

Ans: (c) _____ [3]

End of Paper

Score: _____

SCHOOL : NAN CHIAU PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	2	2	2	1	1	4	3	3

Q 11	Q12	Q13	Q14	Q15
3	3	4	2	3

PAPER 1 BOOKLET B

Q16) 967

Q17) 0.43

Q18) 24 , 48

Q19) 13

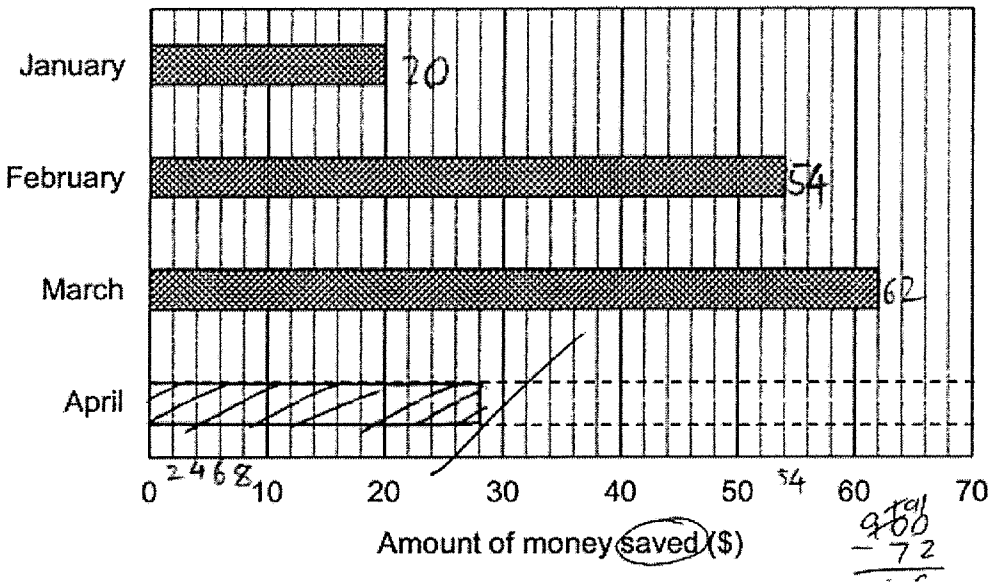
Q20) 6 : 14 : 3

Q21) 44.6kg

Q22) 14

Q23) 16m

Q24)



Q25)	59%
Q26)	½
Q27)	30cm
Q28)	25°
Q29)	**True** **False** **Not possible to tell**
Q30)	1/3

PAPER 2

Q1)	$2 \div 3/8 = 5\frac{7}{8}$ 5
Q2)	9000 ÷ 80 = 112.5 112.5 x 100 =11250 9000 ÷ 120 = 75 75 x 100 = 7500
Q3)	80 x 80 = 6400 6400 x 200 x ¼ = 320000 0.32m³
Q4)	a) Northeast b) Point E
Q5)	170 x 3 = 510 510 – 156 – 148 = 206
Q6)	3 + 5 = 8 120 ÷ 8 = 15 15 x 2 = 30
Q7)	15minutes

Q8) $\angle ADC => 180 - 65 - 47 = 68$

$\angle BAD => 180 - 68 = 112$

$\angle DCG => 180 - 65 - 65 = 50$

$\angle BCE => \frac{180-68}{2} = 56$

$\angle ABE => 56 + 68 = 124°$

Q9) a) 2019

b) 240%

Q10) a) 14 – 11 = 3

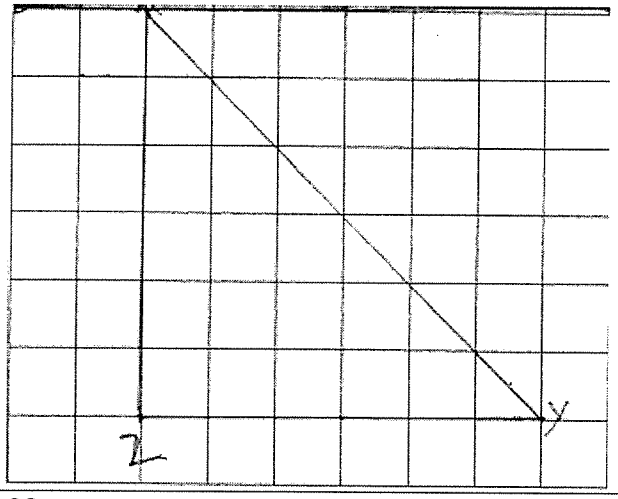
36 ÷ 3 = 12

12 x 6 = 72

b) 12 x 22 = 264

Q11) $122.95

Q12) a) ½ x 4 x 6 = 12cm²

b) 

Q13) a) 62

b) $6.90

Q14) a) 105°

b) 64°

Q15) 140 ÷ 5 = 28

28 x 3 = 84

3u = 28c

28 + 36 = 64

187.5 ÷ 50 = 3.75

3.75 x 3 = 1.25

1.25 x 32 = 40

$40

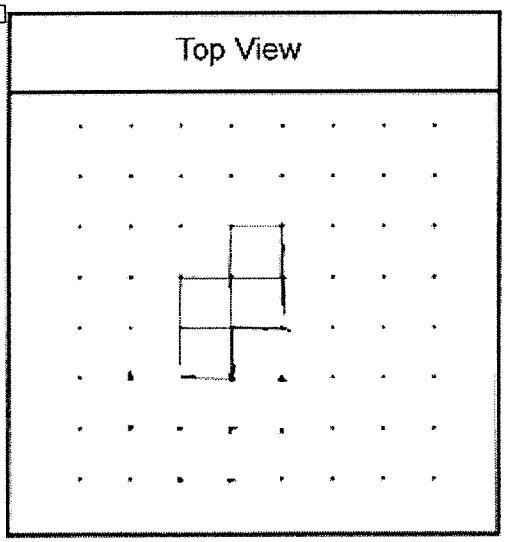
Q16) a) 19cm

b) 219.32cm

c) 5cm

Q17)

a)



b)1

c) 7cm

NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS PAPER 1 (BOOKLET A)

Total Duration for Booklets A and B: 1 hour

Additional materials: Optical Answer Sheet (OAS)

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6 ( )

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. (20 marks)

---

1 Round 659 509 to the nearest thousand.

(1) 659 000

(2) 659 500

(3) 660 000

(4) 700 000

2 In 456.078, the digit 8 stands for _____.

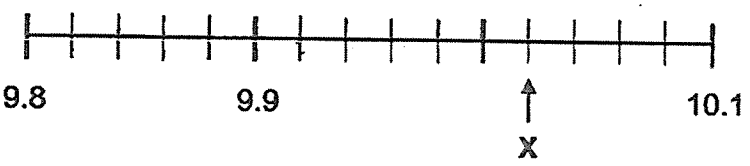
(1) 8 ones

(2) 8 tenths

(3) 8 hundredths

(4) 8 thousandths

3 Part of a scale is shown below. What is the value of the reading at X?



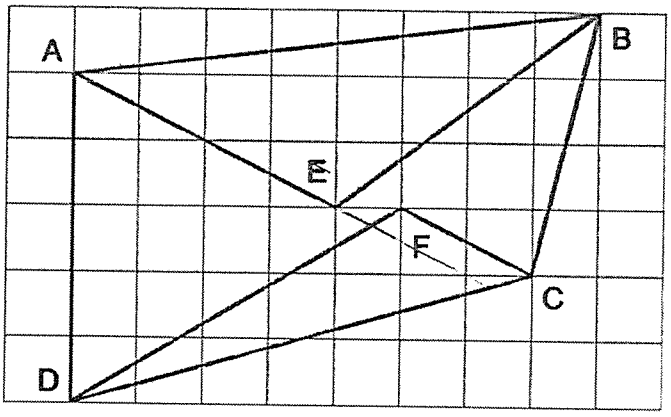
(1) 10.02

(2) 10.01

(3) 9.98

(4) 9.96

4 Which pair of lines in the square grid are parallel?



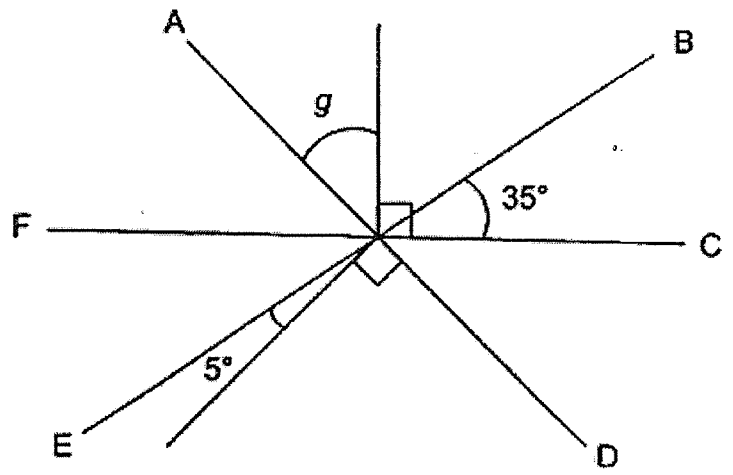
(1) AD and BC

(2) AE and CF

(3) AB and CD

(4) BE and DF

5 AD, BE and FC are straight lines. Find $\angle g$.



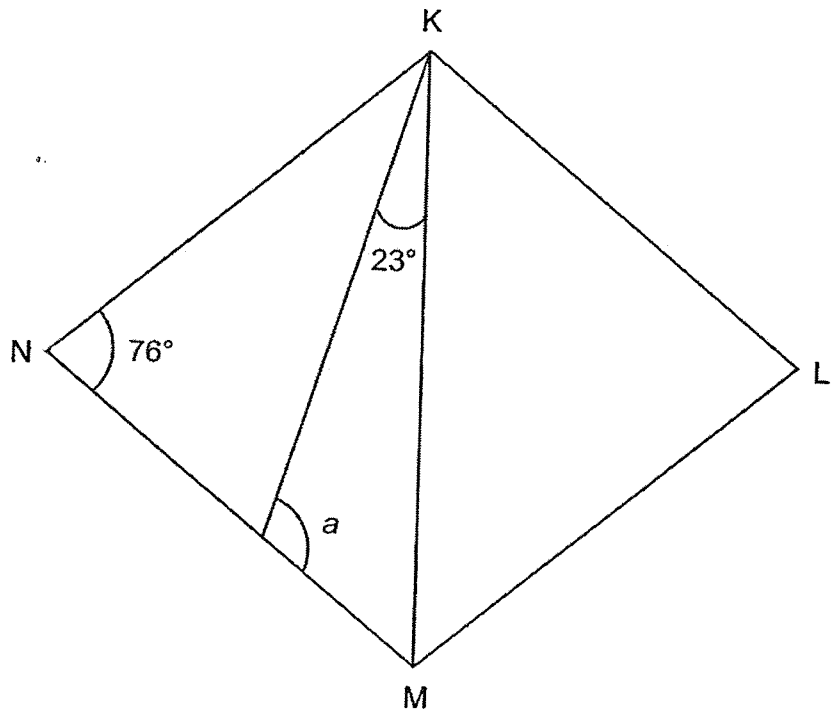
(1) 35°

(2) 40°

(3) 50°

(4) 55°

6 KLMN is a rhombus. Find $\angle a$.



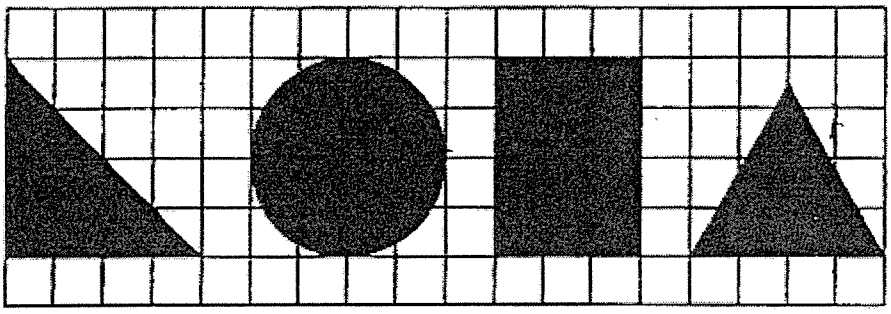
(1) 99°

(2) 104°

(3) 105°

(4) 129°

7 In the square grid below, which shape has the smallest area?



(1) (2) (3) (4)

8 Johan had $10n$ pens. Lih Ming had $3n$ pens. Johan had 84 pens more than Lih Ming. How many pens did Lih Ming have?

(1) 12

(2) 28

(3) 36

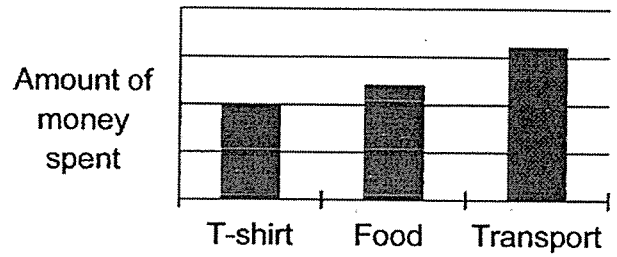
(4) 120

9 The table shows how Mohan spent the money his father gave him.

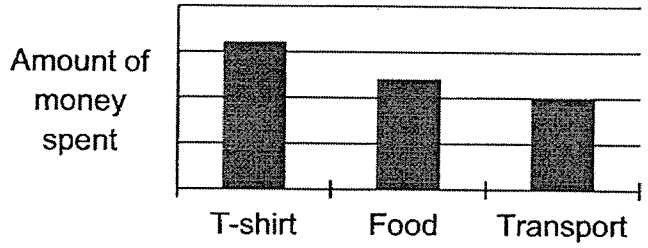
	Food	Transport	T-shirt
Amount of money spent	$16	$12	$10

Which one of the following bar graphs best represents the information shown in the table above?

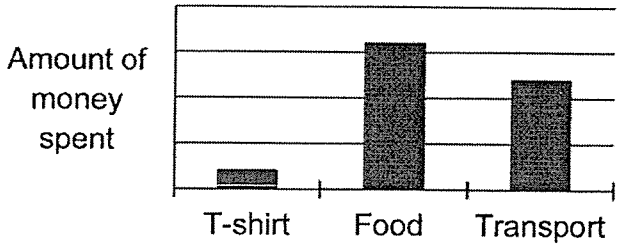
(1)



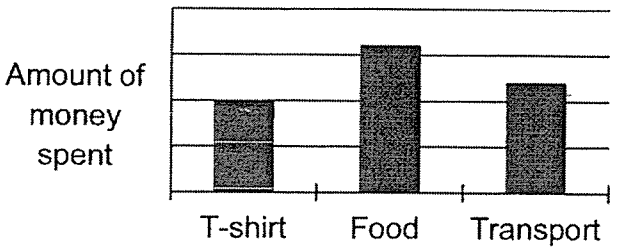
(2)



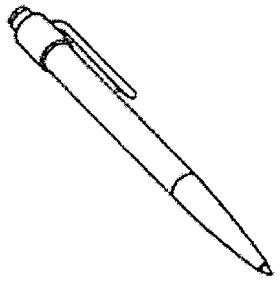
(3)



(4)



10 Which of the following is likely to be the mass of a pen?



(1) 2.25 g

(2) 22.5 g

(3) 2.25 kg

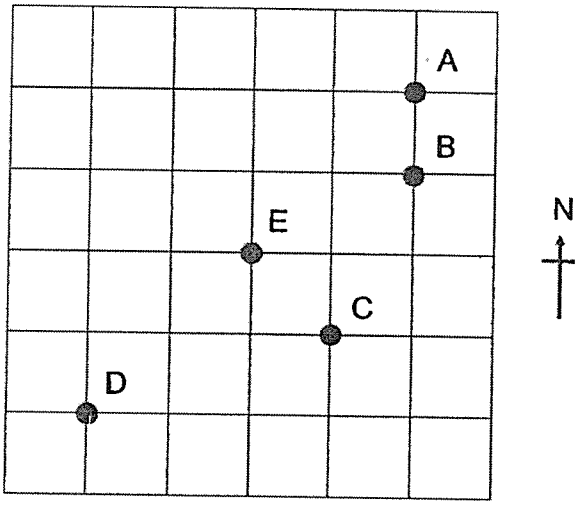
(4) 22.5 kg

11 Arrange the following fractions from the smallest to the greatest.

$$\frac{5}{6}\ ,\ \frac{4}{9}\ ,\ \frac{5}{12}\ ,\ \frac{2}{3}$$

	Smallest			Greatest
(1)	$\frac{5}{6}$,	$\frac{2}{3}$,	$\frac{4}{9}$,	$\frac{5}{12}$
(2)	$\frac{2}{3}$,	$\frac{4}{9}$,	$\frac{5}{6}$,	$\frac{5}{12}$
(3)	$\frac{2}{3}$,	$\frac{5}{6}$,	$\frac{4}{9}$,	$\frac{5}{12}$
(4)	$\frac{5}{12}$,	$\frac{4}{9}$,	$\frac{2}{3}$,	$\frac{5}{6}$

12 In the square grid below, Point E is south-west of Point _____.



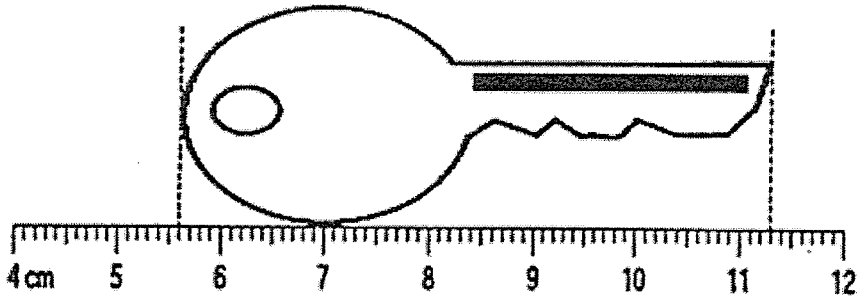
(1) A

(2) B

(3) C

(4) D

13 What is the length of the key as shown below?



(1) 5.6 cm

(2) 5.7 cm

(3) 6.4 cm

(4) 11.3 cm

14 $\frac{3}{5}$ of the number of beads Yana had was twice the number of beads Tricia had. Find the ratio of the number of beads Yana had to the number of beads Tricia had.

(1) 10 : 3

(2) 3 : 10

(3) 6 : 5

(4) 5 : 6

15 The first 7 numbers of a number pattern are given below.

$$\underset{1^{st}}{999}\ ,\ 991\ ,\ 988\ ,\ 980\ ,\ 977\ ,\ 969\ ,\ \underset{7^{th}}{966}\ ,\ \ldots$$

What is the 56^{th} number?

(1) 559

(2) 691

(3) 694

(4) 702

NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS PAPER 1 (BOOKLET B)

Total Duration for Booklets A and B: 1 hour

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of calculators is **NOT** allowed.

Name: _____ ( )

Class: Primary 6 ( )

Booklet B	/ 25

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

---

16 Lucy had 20 apples. 7 apples were red and the rest were green. What fraction of the apples were red?

Ans: _____

---

17 Express 20 013 cm in m.

Ans: _____ m

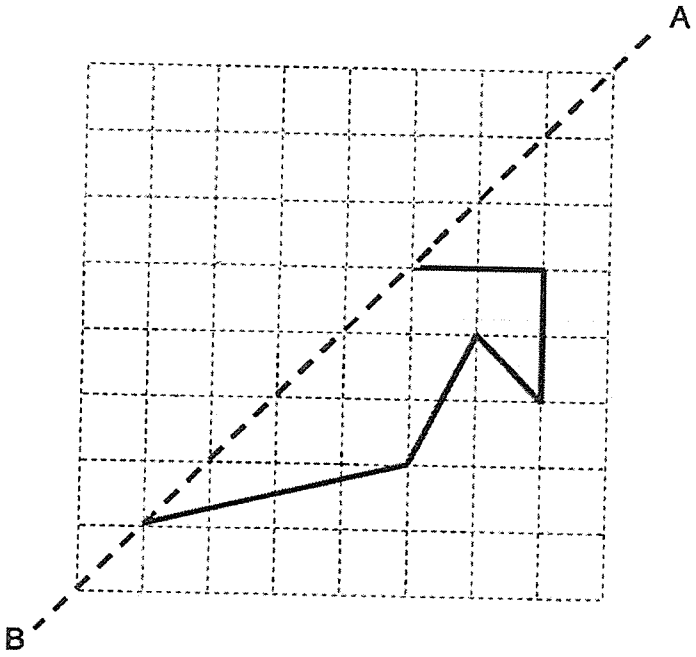
---

18 The opening hours of an ice cream shop is shown below. How long is the shop open each day? Give your answer in hours and minutes.

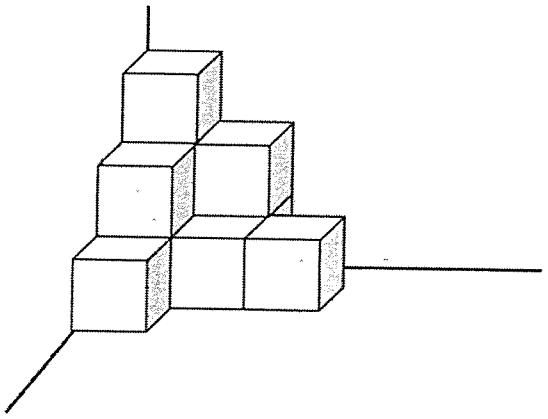
Ans: _____ h _____ min

---

19 Complete the symmetric figure below with AB as the line of symmetry.



20 The solid below is made up of 1-cm cubes. What is the volume of the solid?



Ans: _____ cm^3

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

---

21 What is the sum of all the common factors of 12 and 20?

Ans: _____

---

22 (a) Find the value of 45.01 – 2.8

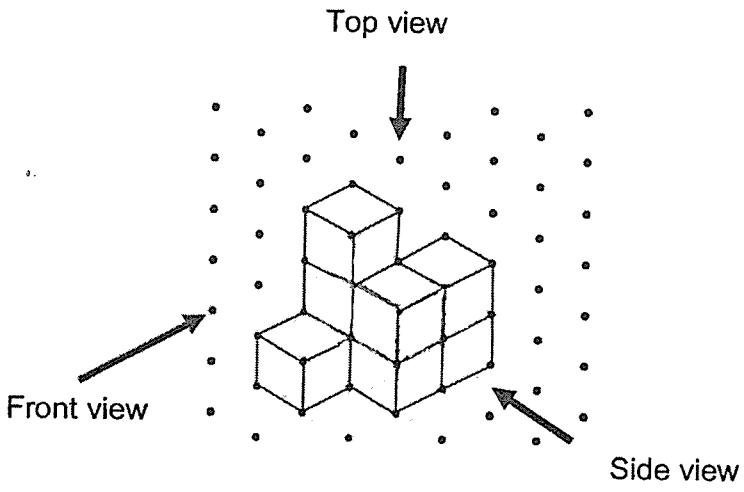
(b) Find the value of 6.3 x 500

Ans: (a) _____

(b) _____

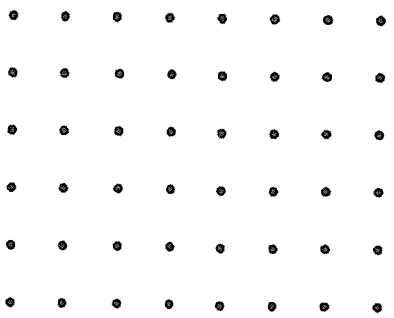
---

23 The solid below is made up of 8 cubes.



(a) Draw the side view of the solid on the grid below.

Side View



(b) Janice painted the whole solid including the base. Then she took it apart into its 8 cubes. What is the total number of faces that are **not** painted?

Ans: (b) _____

24 The length and breadth of a rectangle are (3y + 1) cm and (16 – y) cm respectively. Find the perimeter of the rectangle given that y = 5.

Ans: _____ cm

---

25 Mr Jung spent $408 on some cheese tarts and some egg tarts. He bought twice as many cheese tarts as egg tarts. Each cheese tart cost $3 and each egg tart cost $2. How many egg tarts did Mr Jung buy?

Ans: _____

---

26 Joan had some rice at first. After she used $\frac{1}{5}$ kg of rice to cook lunch and $\frac{1}{4}$ kg of rice to cook dinner, she was left with 350 g of rice. How many kilograms of rice did Joan have at first? Give your answer as a fraction in its simplest form.

Ans: _____ kg

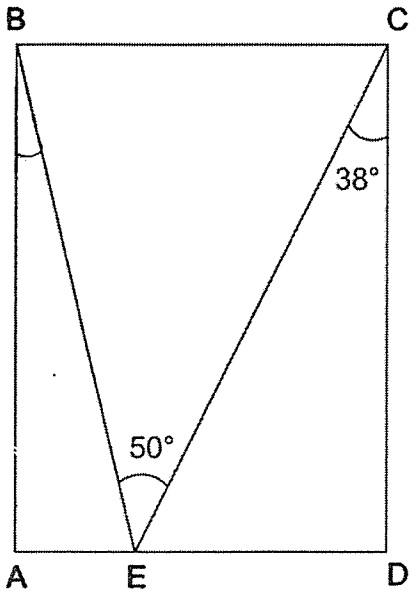
---

27 Three pieces of ribbon measuring $\frac{1}{5}$ m each were cut from a 1 m long ribbon. The remaining length of the ribbon was cut into shorter pieces of length $\frac{1}{10}$ m each. How many pieces of $\frac{1}{10}$ m long ribbon were obtained?

Ans: _____

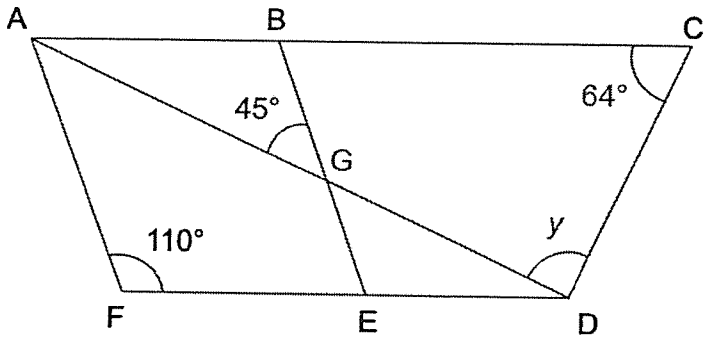
---

28 In the figure below, ABCD is a rectangle. $\angle DCE = 38°$ and $\angle BEC = 50°$. Find $\angle ABE$.



Ans: _____°

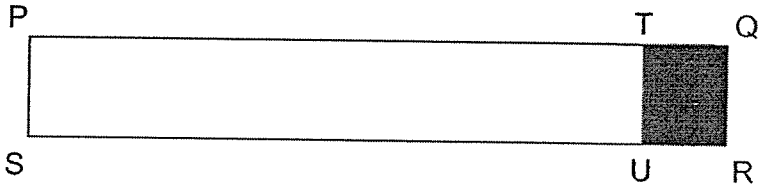
29 In the figure below, ABEF is a parallelogram. ACD and ADF are triangles. Find $\angle y$.



Ans: _____ °

---

30 The perimeter of rectangle PQRS is 8 cm more than that of rectangle PTUS. 10% of rectangle PQRS is shaded. Find the length of PT.



Ans: _____ cm

End of Paper

NANYANG PRIMARY SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS PAPER 2

Duration: 1 hour 30 minutes

INSTRUCTIONS TO PUPILS

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.
5. The use of an approved calculator is expected, where appropriate.

Name: _____ ( )

Class: Primary 6 ( )

Parent's Signature: _____

Booklet A	**/ 20**
Booklet B	**/ 25**
Paper 2	**/ 55**
Total	**/ 100**

Please sign and return the examination paper the next day. Any queries should be raised at the same time when returning paper.

Questions 1 to 5 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

---

1 Mr Lim had 100 computers for sale. He sold w computers in the morning and $(2w + 3)$ computers in the afternoon. He had 7 computers left. How many computers did he sell in the morning?

Ans: _____

---

2 Mr Gopal took a taxi and his taxi fare was based on the charges shown below.

First 2 km	\$3.80
Every additional 500 m or less	\$0.50

The taxi travelled a total distance of 10.6 km. How much was Mr Gopal's taxi fare?

Ans: \$_____

---

3 In a school Cleanliness competition, Class 6W gets a score for each of the four terms in a year.

The table below shows the scores Class 6W gets for Term 1 to Term 3. The score Class 6W gets for Term 4 is not shown in the table.

Term	Score
1	75
2	65
3	110
4	?

Class 6W will qualify for a Cleanliness Award if the class average score for three of the four terms is 90 or more. What is the lowest score Class 6W must get for Term 4 to qualify for the Cleanliness Award?

Ans: _____

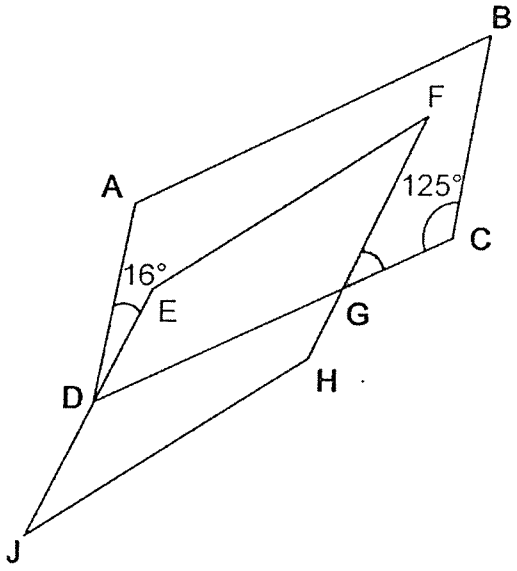
---

4 Don paid $877.40 for a camera after adding 7% GST. How much GST did he pay?

Ans: $_____

---

5 ABCD and EFHJ are parallelograms. $\angle BCG = 125°$ and $\angle ADE = 16°$. Find $\angle CGF$.

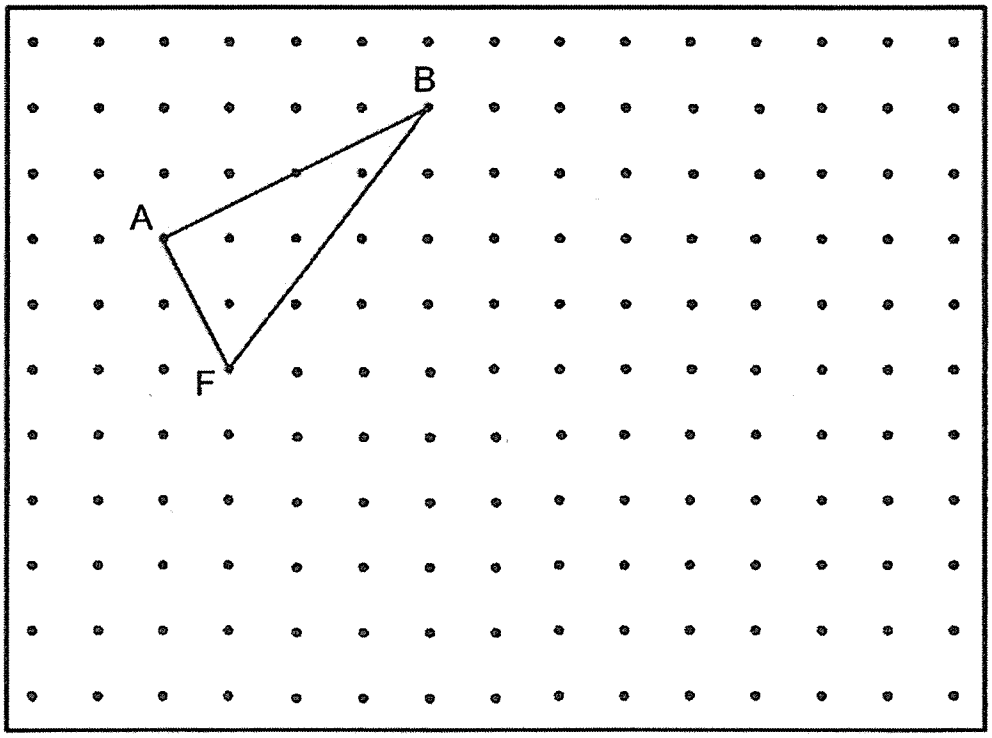


Ans: _____ °

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

---

6 A triangle ABF is drawn on a square grid inside a box.



By joining dots on the grid with straight lines,

(a) draw a trapezium ABCD such that ∠ABC = 90°, AD is 3 times as long as AF and BC = DF.

[2]

(b) draw a parallelogram BECF.

[1]

---

7 A baker sold curry puffs at 80¢ each and kaya puffs at 60¢ each. Kai Ling bought some curry puffs and Faizal bought some kaya puffs from the baker. Faizal spent $1.20 less than Kai Ling, but bought 5 more puffs than Kai Ling. How much did Kai Ling spend on the curry puffs?

Ans: _____ [3]

8 Jinrong had a total of 304 chicken pies and blueberry pies at first. After giving away an equal number of each type of pie, she had $\frac{1}{3}$ of the chicken pies and $\frac{2}{5}$ of the blueberry pies left. How many blueberry pies were left?

Ans: _____ [3]

9 Four numbers were written on the whiteboard as shown below.

128	**130**	**188**	**198**

(a) What was the average of the four numbers written on the whiteboard?

(b) After Amir wrote a 2-digit even number on the same whiteboard, the new average of the five numbers became a multiple of five. What was the 2-digit even number written by Amir?

Ans: (a) _____ [1]

(b) _____ [2]

10 Machine P prints 40 identical posters per hour while Machine Q prints 90 such posters per hour. Machine P started printing 30 minutes before Machine Q. When the number of such posters printed by Machine P was equal to the number of such posters printed by Machine Q, both machines were switched off to stop the printing. What was the total number of copies printed by the two machines?

Ans: _____ [3]

11 A florist sold small and big potted plants. He collected \$5 for each small potted plant and \$15 for each big potted plant.

The table shows the number of small and big potted plants sold in January and February. The number of small and big potted plants sold in March is not shown in the table.

Month	Number of potted plants sold	
	Small	Big
January	10	17
February	20	12
March	?	?

(a) What was the ratio of the amount of money collected from selling the small potted plants in January to the amount of money collected from selling the big potted plants in January? Express the ratio in its simplest form.

(b) The total amount of money collected from selling the big potted plants from January to March was \$585. How many big potted plants were sold in March?

(c) In April, the number of small potted plants sold was 30. This was 20% more than the number of small potted plants sold in March. How many small potted plants were sold in March?

Ans: (a) _____ [1]

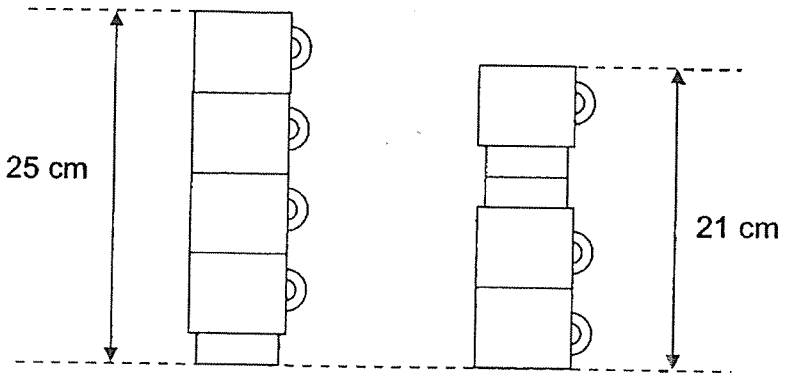
(b) _____ [2]

(c) _____ [2]

12 A rectangular tank measuring 54 cm by 25 cm by 24 cm was $\frac{2}{3}$ full of water. Khairul had some identical cubical containers filled with water to the brim. The length of one edge of each cubical container was 6 cm. After he poured all the water from all the cubical containers into the tank, the tank became $\frac{7}{10}$ full of water. How many such cubical containers did Khairul have?

Ans: _____ [4]

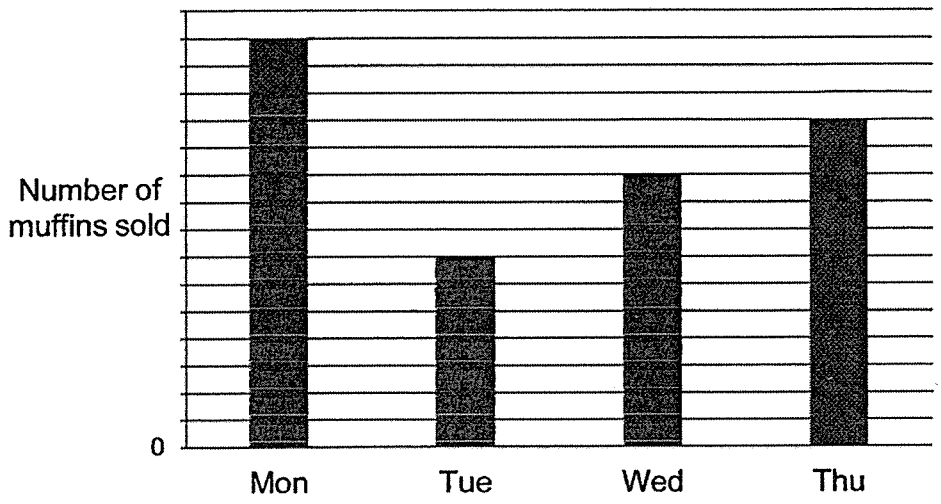
13 The figure shows two stacks of identical cups. There are 4 cups in the taller stack and 3 cups in the shorter stack. The height of the taller stack is 25 cm and the height of the shorter stack is 21 cm.



Omar wants to pack the cups as a single stack into a box 87 cm tall. What is the most number of cups he can pack into the box?

Ans: _____ [4]

14 A baker baked the same number of muffins each day for sale. The bar graph below shows the number of muffins sold by the baker from Monday to Thursday last week. The number of muffins sold is not shown on the scale.



(a) On which day was the number of muffins left unsold the least?

(b) The baker sold 34 more muffins on Thursday than on Wednesday. Each time a customer bought 8 or more muffins, a free gift was given. What was the greatest number of free gifts given to the customers from Monday to Thursday in all?

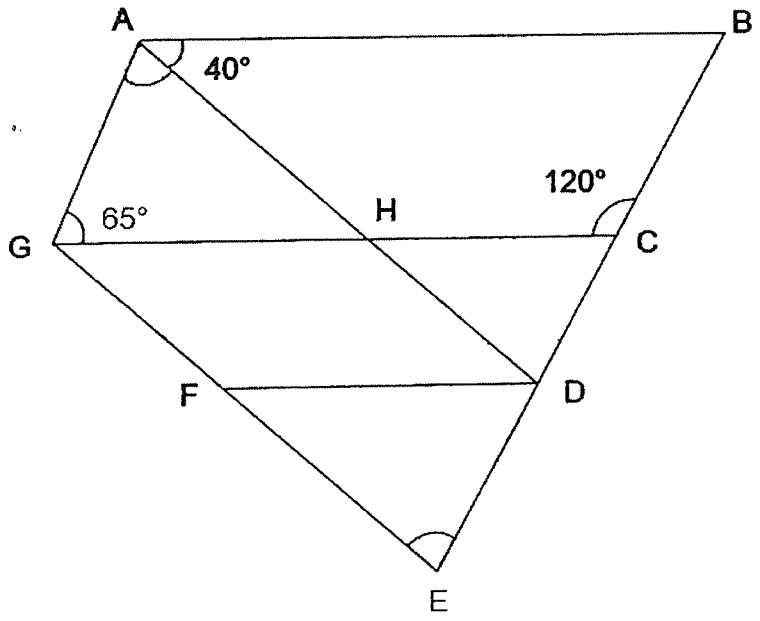
Ans: (a) _____ [1]

(b) _____ [3]

15 Mr Ng had some red pens, blue pens and green pens. The ratio of the number of red pens to the number of blue pens was 2 : 3 and the ratio of the number of blue pens to the number of green pens was 9 : 7. After he gave away some green pens and bought 26 blue pens, the total number of blue pens and green pens decreased by 25%. In the end, the total number of red pens, blue pens and green pens he had was 576. How many green pens did he give away?

Ans: _____ [4]

16 In the figure below, DFGH is a parallelogram and ABCH is a trapezium. AB is parallel to HC. BCDE, GHC, AHD and GFE are straight lines. $\angle BAH = 40°$, $\angle AGH = 65°$ and $\angle BCH = 120°$.



(a) Find $\angle GAH$.

(b) Find $\angle DEF$.

Ans: (a) _____ [1]

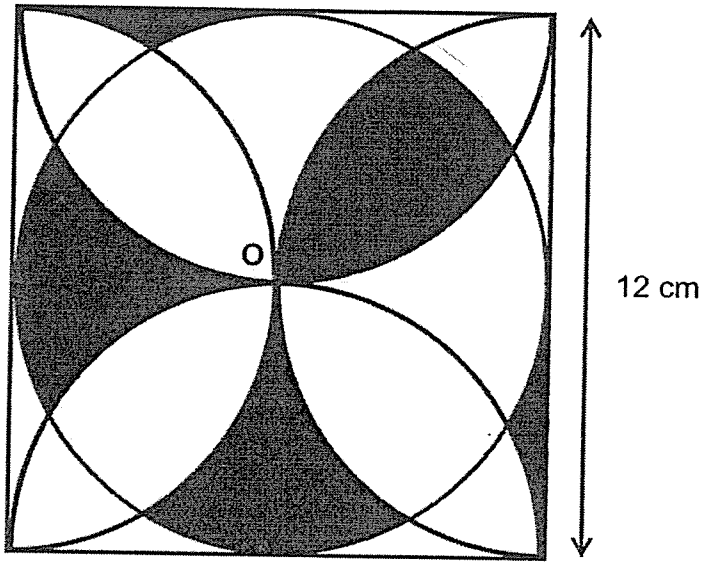
(b) _____ [2]

(c) The figure above is not drawn to scale. Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
AGH is an isosceles triangle.			
AG is parallel to DE.			

[1]

17 The figure shows a circle and 4 identical semicircles drawn inside a square of side 12 cm. O is the centre of the circle.



(a) Find the circumference of the circle.

(b) What is the total area of the shaded parts?

Take $\pi = 3.14$

Ans: (a) _____ [1]

(b) _____ [4]

End of Paper

SCHOOL : NANYANG PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	4	1	2	2	3	4	3	4	2

Q 11	Q12	Q13	Q14	Q15
4	1	2	1	3

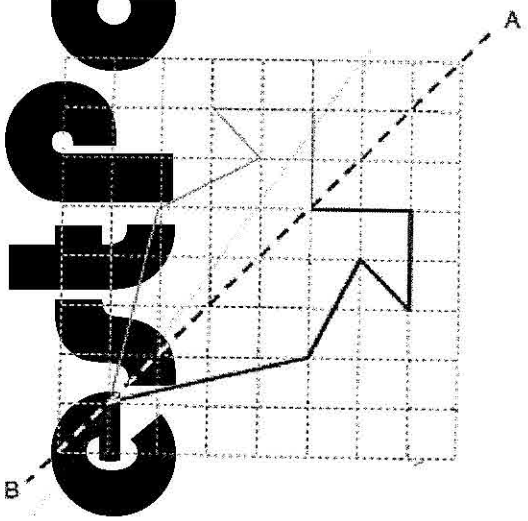
PAPER 1 BOOKLET B

Q16) 7/20

Q17) 200.13m

Q18) 10h 45min

Q19)

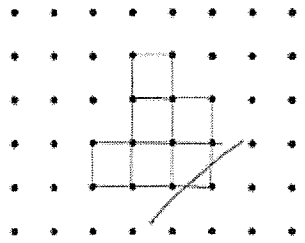


Q20) $10cm^3$

Q21) 7

Q22) a) 42.21
b) 3150

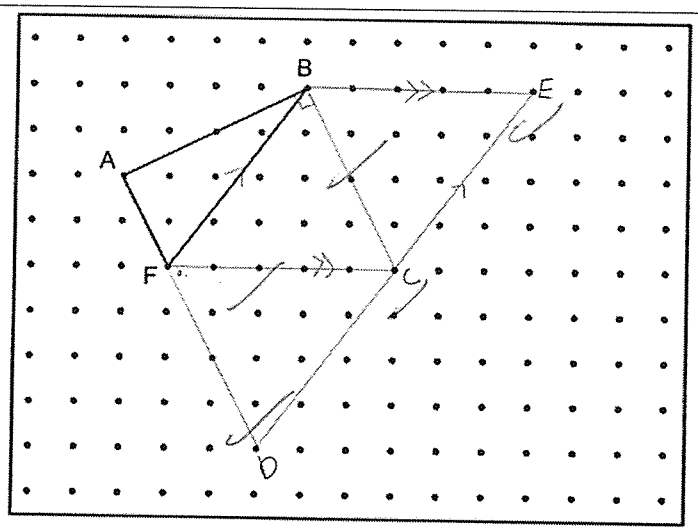
Q23)
a)

	Side View  b)18
Q24)	54cm
Q25)	51
Q26)	4/5 kg
Q27)	4
Q28)	12°
Q29)	**91°**
Q30)	36cm

PAPER 2

Q1)	2w + w + 3 = 3w + 3 3w + 3 + 7 = 100 3w = 90 W = 30
Q2)	10.6km – 2km = 8.6km 8.6km ÷ 0.5km = 17R 0.1km 17 +1 = 18 18 x $0.50 = $9 $9 + $3.80 = $12.80
Q3)	90 x 3 = 270 270 – 110 – 75 = 85
Q4)	$57.40
Q5)	180 – 125 = 55 55 – 16 = 39 39°

Q6)



a)
b)

Q7) 5 x 0.60 = 3
3 + 1.20 = 4.20
4.20 ÷ 0.20 = 21
21 x 0.80 = 16.80
$16.80

Q8) 64

Q9) a) 161
b) 56

Q10) 72

Q11) a) 10 : 51
b) (17 + 12) x $15 = $435
$585 - $435 = $150
$150 / $15 = 10
c) 120% = 30
20% = 5
100% = 25

Q12) 5

Q13) 21cm + 4cm + 4cm =29cm
29cm ÷ 5 = 5.8cm
87cm ÷ 5.8cm = 14

Q14) a) Monday
b) 91

Q15) 6u + 12u = 576
18u = 576
U = 32
7u = 224
8u – 26 = 70
224 – 70 = 154

Q16) a) 75°
b) 80°

	c)	False False
Q17)	a)	12cm x 3.14 = 37.68cm
	b)	12cm / 2 = 6cm 6cm x 6cm x 3.14 = 113.04cm² 12cm x 12cm = 144cm² 144cm² - 113.04cm² = 30.96cm² 30.96cm²/4 = 7.74cm² 113.04cm² x 2 = 226.08cm² 226.08cm² - 144cm² = 82.08cm² 82.08cm²/4 = 20.52cm² 144cm² - 7.74cm² - 113.04cm² + 20.52cm² = 43.74cm²

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
PRELIMINARY EXAMINATION

PRIMARY 6
MATHEMATICS PAPER 1
(BOOKLET A)

19 August 2021

Name: _____

Form Class / Register No. : 6R_____ / _____

Total time for Booklets A and B: 1h

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers on the Optical Answer Sheet (OAS) provided.
6. The use of calculator is **NOT ALLOWED**.

This booklet consists of 8 printed pages, excluding the cover page.

Paper 1 (Booklet A)

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1. Round 355 074 to the nearest thousand.

   (1) 300 000

   (2) 350 000

   (3) 355 000

   (4) 360 000

2. Which of the following fractions is **not** equivalent to $\frac{1}{3}$?

   (1) $\frac{2}{6}$

   (2) $\frac{3}{9}$

   (3) $\frac{4}{10}$

   (4) $\frac{5}{15}$

3. In 5.789, what does the digit 7 stand for?

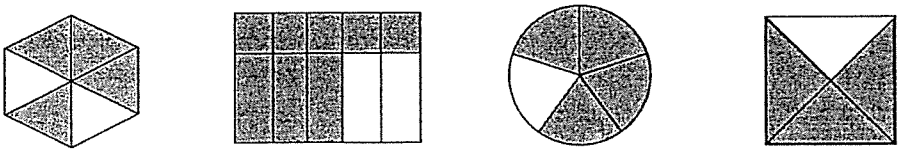
   (1) 7 ones

   (2) 7 tenths

   (3) 7 hundredths

   (4) 7 thousandths

4. Which of the following shows 80% of its figure shaded?



(1) (2) (3) (4)

5. There were 12 red, yellow and green beads. 4 beads were red, 3 were yellow and the rest were green. Find the ratio of the number of red to yellow to green beads.

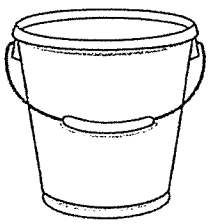
(1) 3 : 5 : 4

(2) 4 : 3 : 5

(3) 4 : 5 : 3

(4) 5 : 3 : 4

6. Mrs Lim uses the pail as shown for mopping the house daily.
Which of the following could be the capacity of the pail?



(1) 8 ℓ

(2) 8 mℓ

(3) 80 ℓ

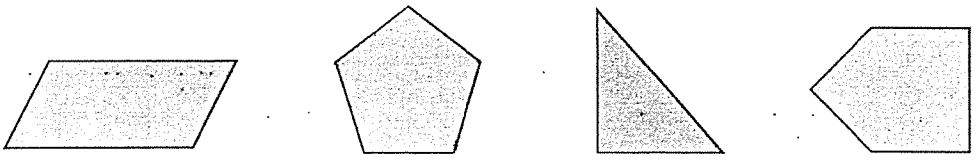
(4) 80 mℓ

7. Arrange the following from the heaviest to the lightest.

10.15 kg	10 kg 15 g	$10\frac{1}{5}$ kg

	Heaviest				Lightest
(1)	$10\frac{1}{5}$ kg	,	10.15 kg	,	10 kg 15 g
(2)	$10\frac{1}{5}$ kg	,	10 kg 15 g	,	10.15 kg
(3)	10.15 kg	,	10 kg 15 g	,	$10\frac{1}{5}$ kg
(4)	10 kg 15 g	,	$10\frac{1}{5}$ kg	,	10.15 kg

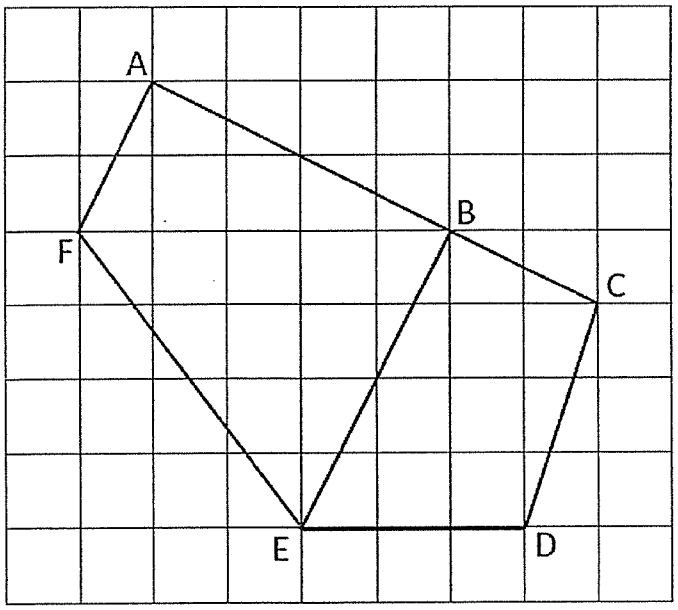
8. Which of the following figures has at least 2 lines of symmetry?



(1) (2) (3) (4)

(Go to the next page)

9. Which two lines in the square grid below are parallel to each other?



(1) AB and BE

(2) AF and CD

(3) BE and CD

(4) AF and BE

10. The table shows the favourite food of a group of pupils.
Which type of food is the most popular among the boys?

Food	Number of Girls	Number of Boys	Total Pupils
Pizza	49	45	94
Burger	40	49	89
Fried Rice	50	44	94
Fried Noodle	47	48	95

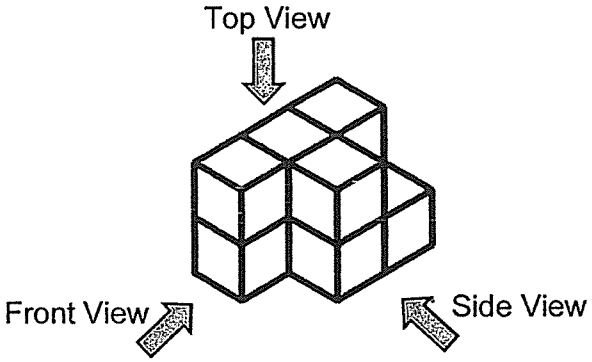
(1) Pizza

(2) Burger

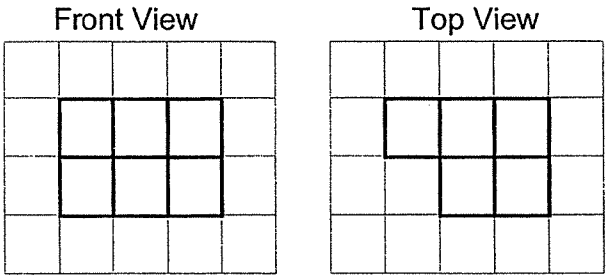
(3) Fried Rice

(4) Fried Noodle

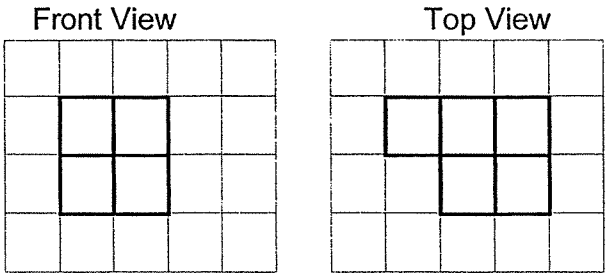
11. The solid below is made up of 9 cubes.
Which of the following shows the two correct views of the solid?



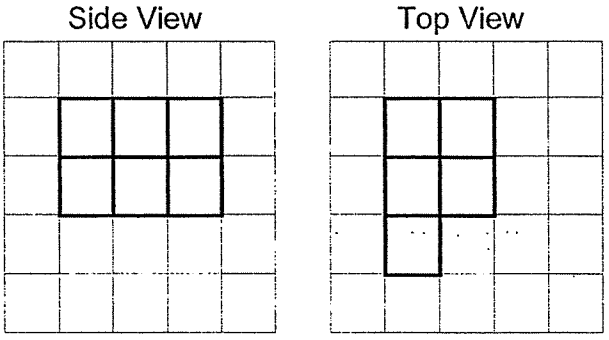
(1)



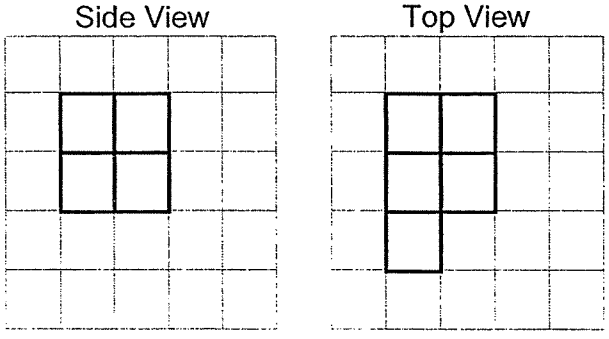
(2)



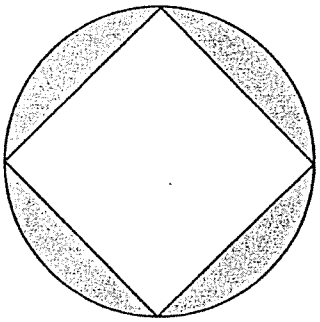
(3)



(4)



12. The figure below shows a circle with a square inside it. The diameter of the circle is 14 cm. Find the total area of the shaded parts.



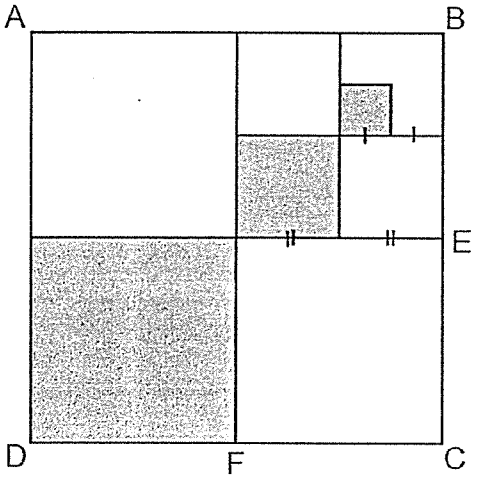
(1) $(49\pi - 49)\ cm^2$

(2) $(49\pi - 98)\ cm^2$

(3) $(196\pi - 98)\ cm^2$

(4) $(196\pi - 196)\ cm^2$

13. The figure below shows a square ABCD with E and F as mid-points. 3 smaller squares are shaded as shown. What fraction of the square ABCD is shaded?



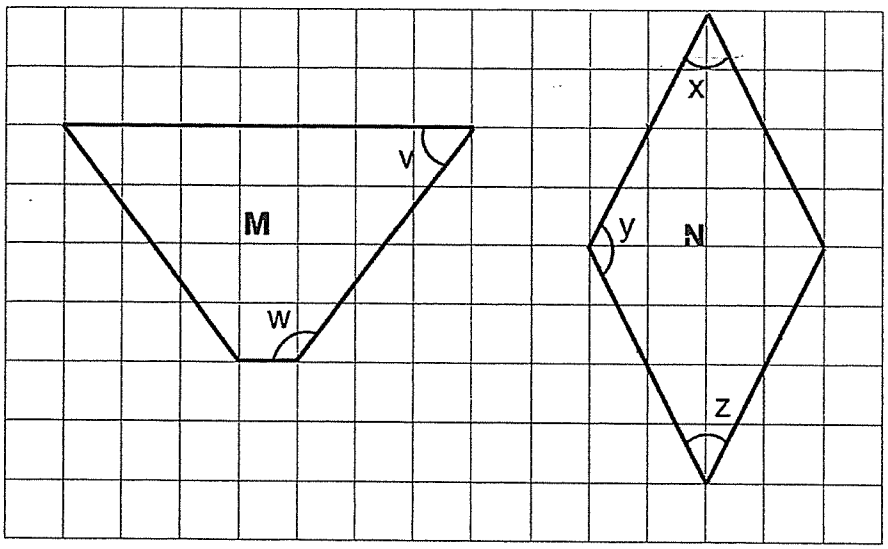
(1) $\frac{1}{3}$

(2) $\frac{3}{7}$

(3) $\frac{7}{24}$

(4) $\frac{21}{64}$

14. Two figures M and N are shown in the square grid below. $\angle v = \angle x$.



Which of the statement(s) is/are **true**?

A. $\angle w + \angle x + \angle y + \angle z = 360^{o}$

B. Figure M has the same perimeter as Figure N

C. Figure M has the same area as Figure N

(1) C only

(2) A and B only

(3) A and C only

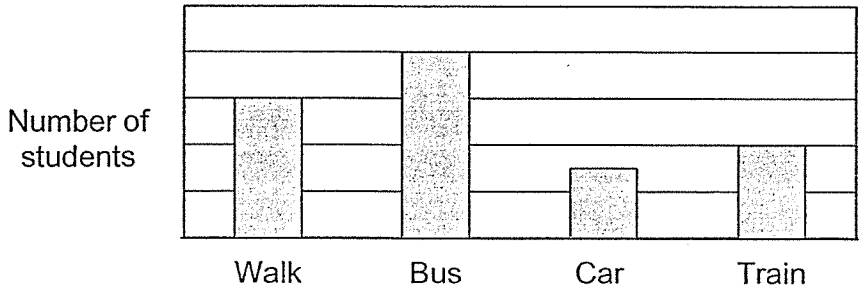
(4) B and C only

15. The table shows how a group of 110 students go to school.

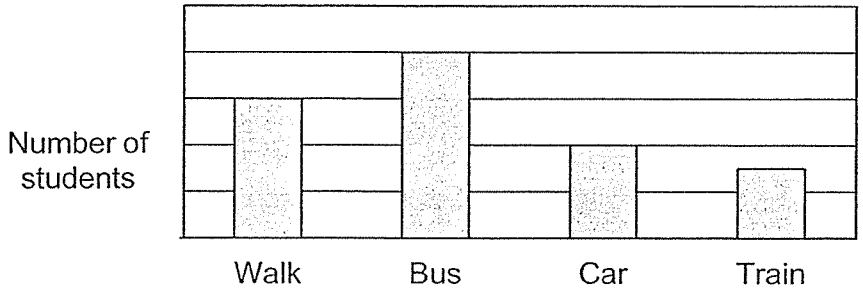
Mode	Walk	Bus	Car	Train
Students	30	40	15	25

Which of the following bar graphs represents the information shown in the table above?

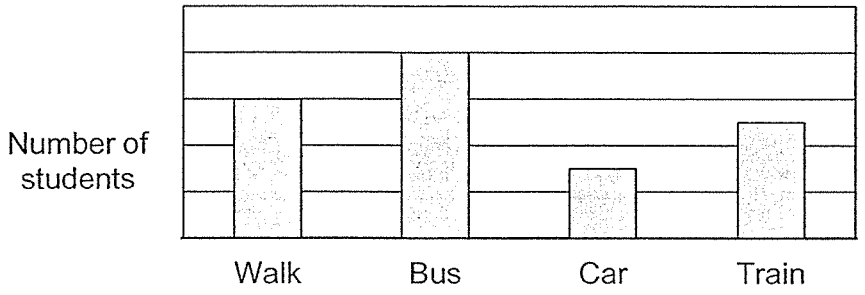
(1)



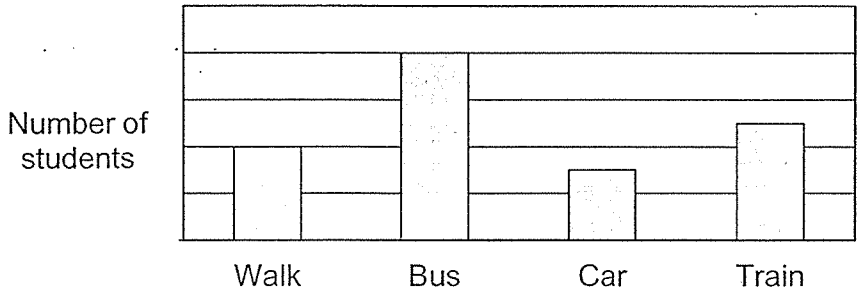
(2)



(3)



(4)



- End of Booklet A -

PEI HWA PRESBYTERIAN PRIMARY SCHOOL
PRELIMINARY EXAMINATION

PRIMARY 6
MATHEMATICS PAPER 1
(BOOKLET B)

19 August 2021

Parent's signature

Name : _____

Form Class / Register No. : 6R_____ / _____

Total time for Booklets A and B: 1h

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.
6. The use of calculator is **NOT ALLOWED**.

Marks (Booklet A) :	20
Marks (Booklet B) :	25
Total Marks (Booklets A and B) :	45

This booklet consists 7 printed pages, excluding the cover page.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

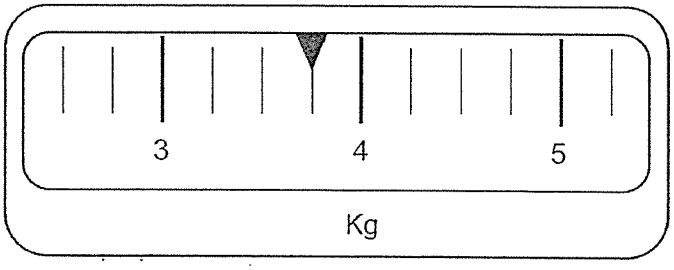
16. Find the value of $\frac{3}{4} \div \frac{9}{10}$

Ans: _____

17. Express $\frac{5}{8}$ as a percentage.

Ans: _____%

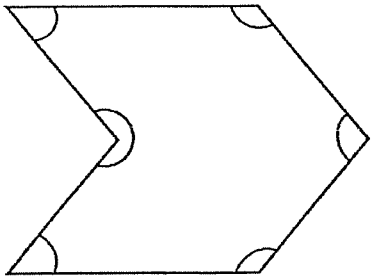
18. A bag of rice is placed on a scale. The figure shows part of a scale. What is the mass of the bag of rice?



Ans: _____kg

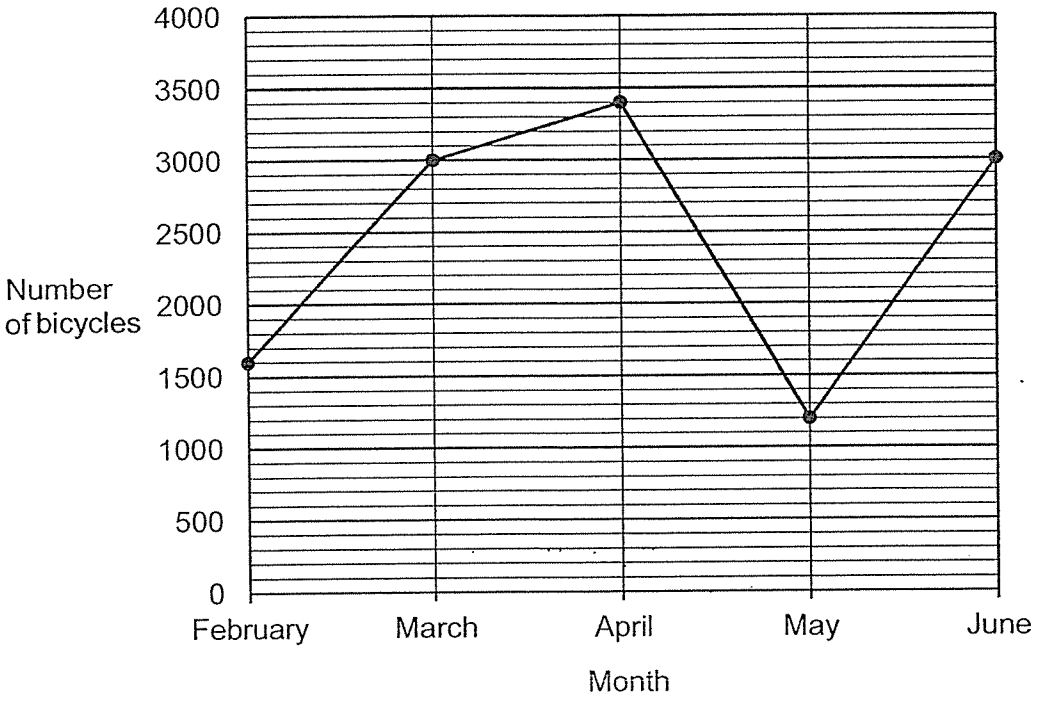
19. How many marked angles in the figure below are greater than a right angle?

Do not write in this space



Ans: _____

20. The line graph shows the number of bicycles rental from February to June.
In which one-month interval period was the increase in the number of bicycles rental the most?



Ans: From_____ to _____

Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

21. 10.4 kg of flour was packed equally into 20 bags.
How much flour was in each bag?

Ans: _____ kg

22. A machine prints 60 pages in 10 minutes.
At the same rate, how many pages can it print in 2 hours?

Ans: _____

23. Find the value of $4t - \frac{5t}{3} + 8$ when $t = 6$.

Ans: _____

24. Siti had 1 ℓ of syrup. She used $\frac{1}{5}$ ℓ of syrup on Saturday and $\frac{5}{6}$ of the remaining syrup on Sunday. How many litres of syrup did Siti have left?
Leave your answer in the simplest form.

Ans: _____ ℓ

25. Mr Poh worked 3 h 45 min in the morning and 4 h 30 min in the afternoon.

Do not write in this space

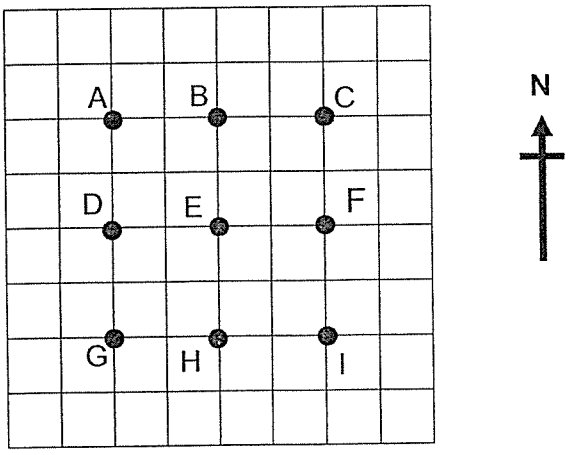
(a) How long did he work in total for the day?

(b) Mr Poh had an hour of lunch in between work. He left work at 17 25. At what time did he start working? Give your answer in 24 hour clock.

Ans: (a)_____h_____min

(b)_____

26. The square grid shows the position of points A, B, C, D, E, F, G, H and I.



(a) In which direction is G from C?

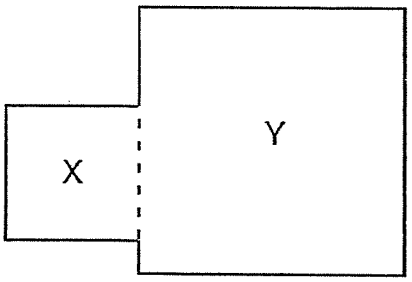
(b) Mandy stood at one of the points facing A. After she turned 135° clockwise, she faced F. Which point was Mandy at?

Ans: (a)_____

(b)_____

Do not write in this space

27. Bala bent an 80 cm wire to form a figure of 2 squares X and Y as shown below. The area of square X is $\frac{1}{4}$ the area of square Y. What is the area of square X?



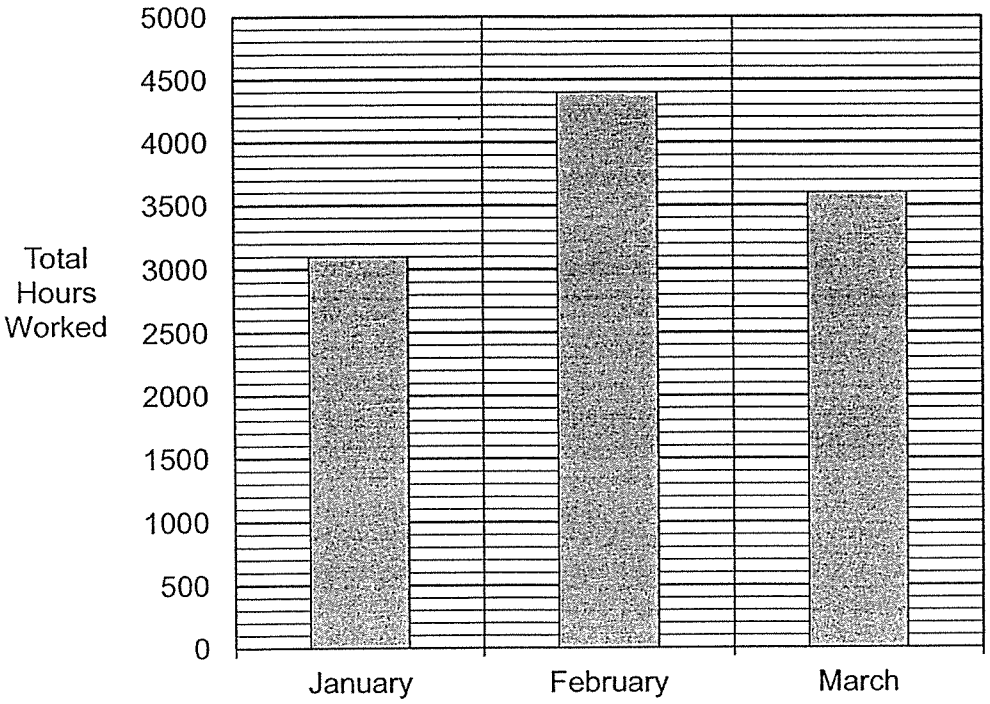
Ans: _____ cm^2

28. Adam, Bryan and Charlie each had some money. Bryan and Charlie had a total of \$5.90 more than Adam. Adam and Charlie had a total of \$20.70 more than Bryan. How much more money did Adam have than Bryan?

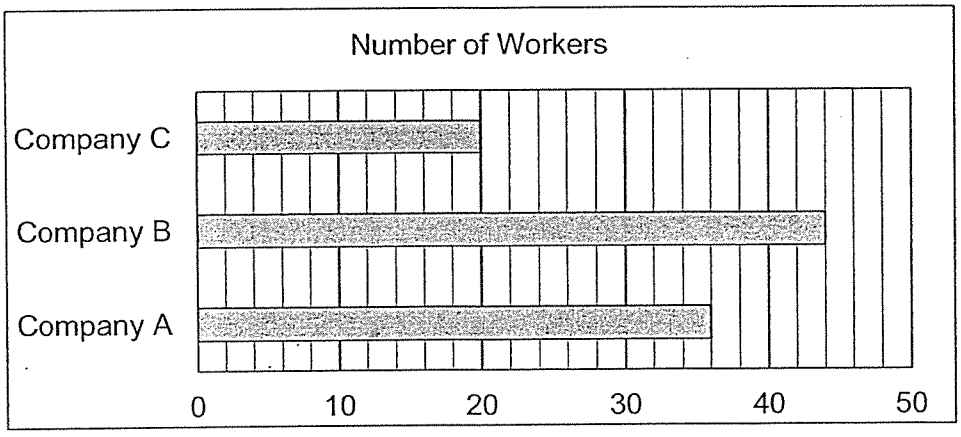
Ans: \$_____

Do not write in this space

29. The bar graph shows the total number of hours worked by 3 companies from January to March.



The bar graph shows the number of workers in each company from January to March.

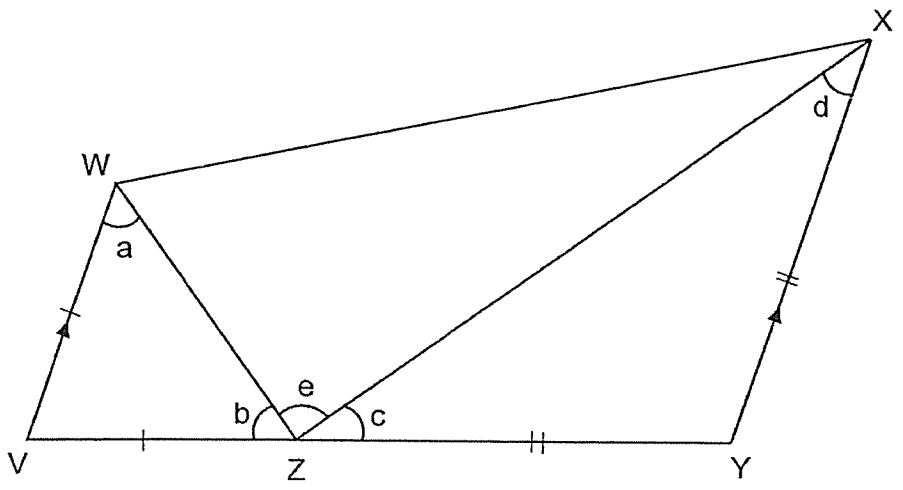


What was the average number of hours worked by each worker from January to March?

Ans: _____h

Do not write in this space

30. The figure below shows a trapezium VWXY. VZY is a straight line.



Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) to indicate your answer.

Statement	True	False	Not possible to tell
$\angle a + \angle b + \angle c + \angle d = 180^o$			
$\angle b + \angle c = 90^o$			
WXYZ is a trapezium			

End of Paper

PEI HWA PRESBYTERIAN PRIMARY SCHOOL

PRELIMINARY EXAMINATION

PRIMARY 6
MATHEMATICS
PAPER 2

19 August 2021

Parent's signature

Name : _____

Form Class / Register No. : 6R_____ / _____

Total time: 1h 30min

INSTRUCTIONS TO CANDIDATES

1. Write your Name, Class and Register No. in the spaces provided above.
2. DO NOT turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write all your answers in this booklet.
6. The use of an approved calculator is expected, where appropriate.

Booklet A :		**Booklet B :**		**Total:**	45
				Paper 2 :	55
				Total Marks :	100

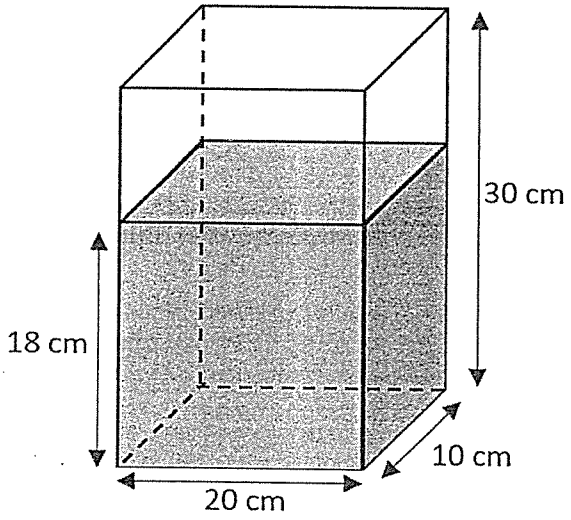
This booklet consists of 19 printed pages, excluding the cover page.

Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. The figure below shows a rectangular tank containing some water.

   How much water has to be poured out of the tank for it to be $\frac{2}{5}$ full?

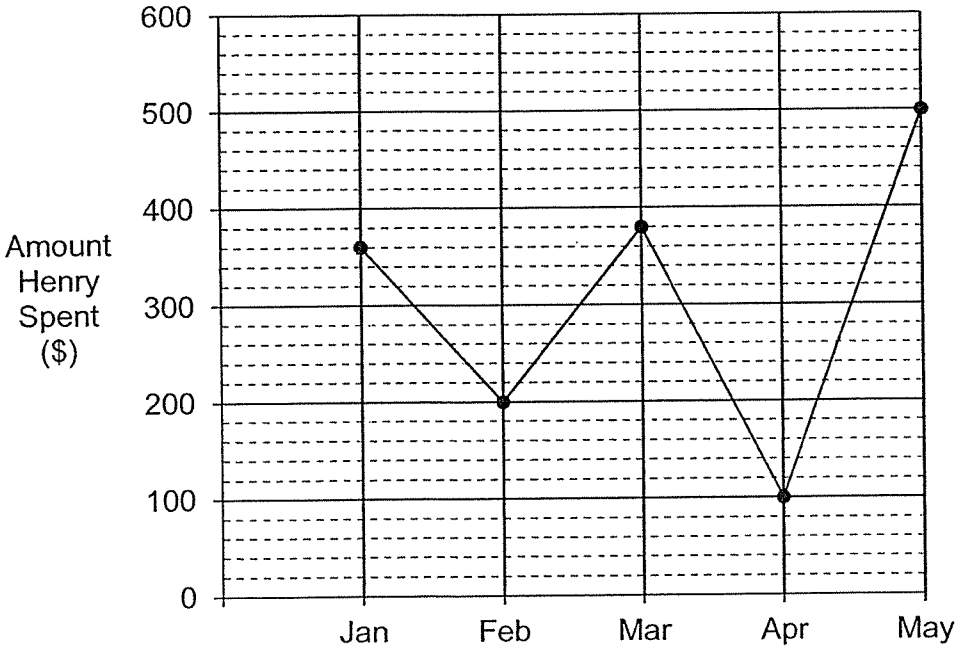


Ans: _____ ml

(Go on to the next page)

Do not write in this space

2. Henry's monthly salary was $500.
The line graph shows the amount of money he spent each month.



Write down all the months in which Henry spent more than $\frac{3}{4}$ of his monthly salary.

Ans: _____

Do not write in this space

3. A rectangle has a perimeter of $(y + 9)$ cm. The breadth is 2 cm.

(a) What is the length of the rectangle in term of y?

(b) Find the area of the rectangle if y is 11 cm.

Ans (a) : _____ cm

(b) : _____ cm^2

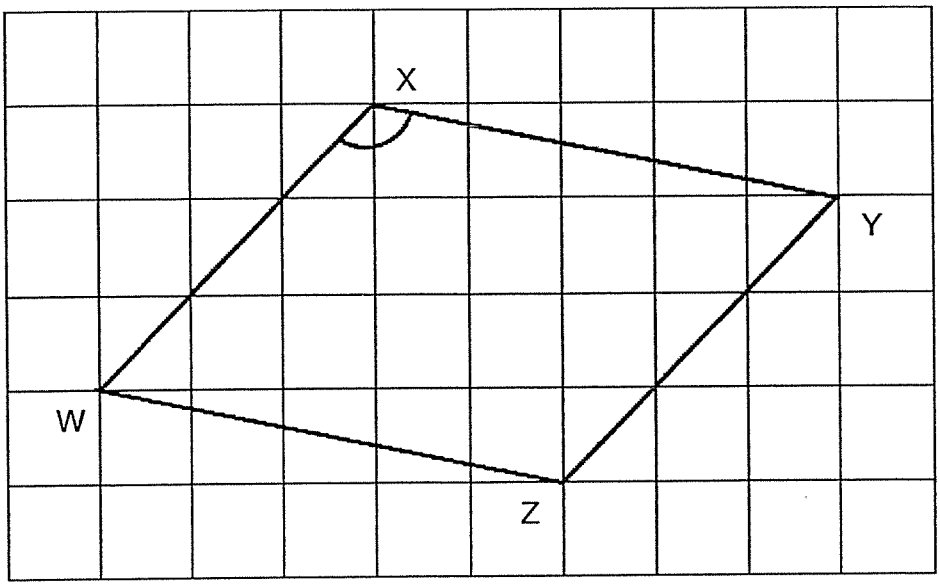
4 In a bag, $\frac{3}{8}$ of the buttons were green. There were four times as many blue as red buttons. There were 24 more blue than green buttons. What was the total number of buttons in the bag?

Ans: _____

Do not write in this space

5. Measure and write down

(a) the size of ∠WXY



Ans: (a)_____°

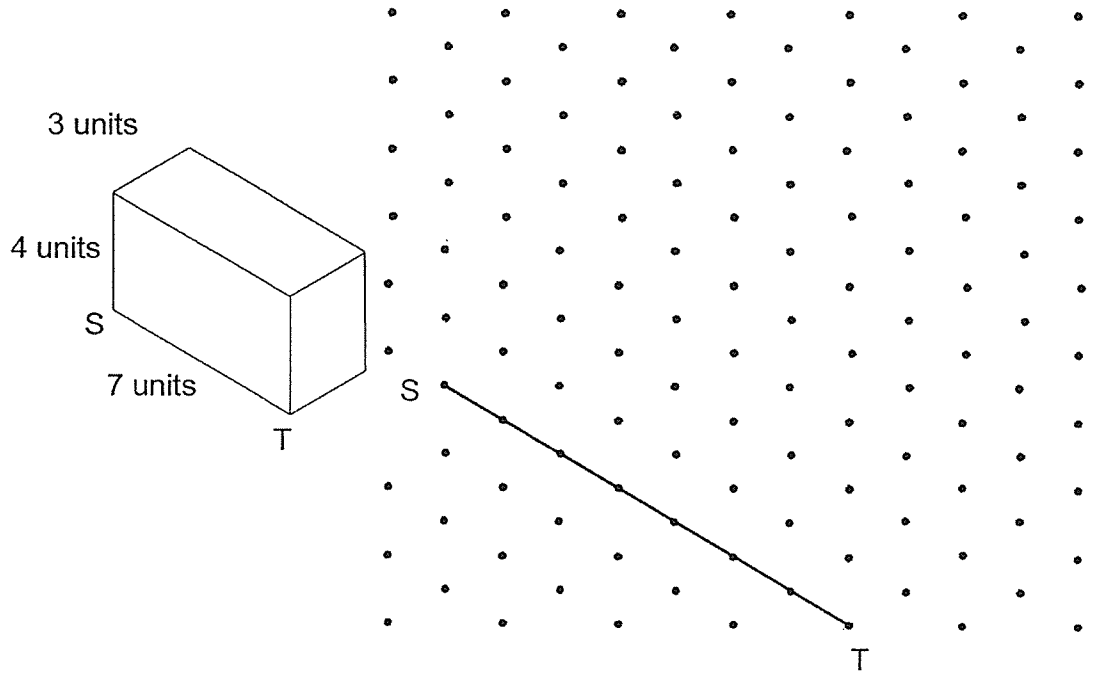
(b) Circle the words that describe WXYZ correctly in the following statement:

WXYZ is a **(parallelogram / rhombus)** because all four sides **(are / are not)** equal in length.

For questions **6** to **17**, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write in this space

6. (a) Draw the rectangular block on the grid provided.
ST has been drawn for you.



[1]

(b) Ali painted the whole rectangular block with red paint. He then cut the block into smaller unit cubes. What is the greatest number of unit cubes he can get?

(c) How many of the unit cubes had exactly two of their faces painted red?

Ans: (b) _____ [1]

(c) _____ [1]

Do not write in this space

7. The table shows the mailing charges to Korea.

Mass Step	By Sea	By Air
First 100 g	$0.40	$1.80
For every additional 100 g	$1.20	$8.40

(a) Kelly sent a parcel weighing 250 g to Korea by sea. How much did she pay for the mailing charges?

(b) Mary paid a total of $29.20 to send a parcel to Korea. By which way did she send the parcel? What was the greatest possible mass of the parcel in kilograms?

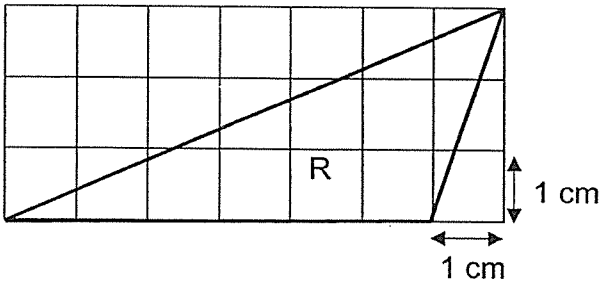
Ans: (a) _____ [1]

(b) Way: _____;

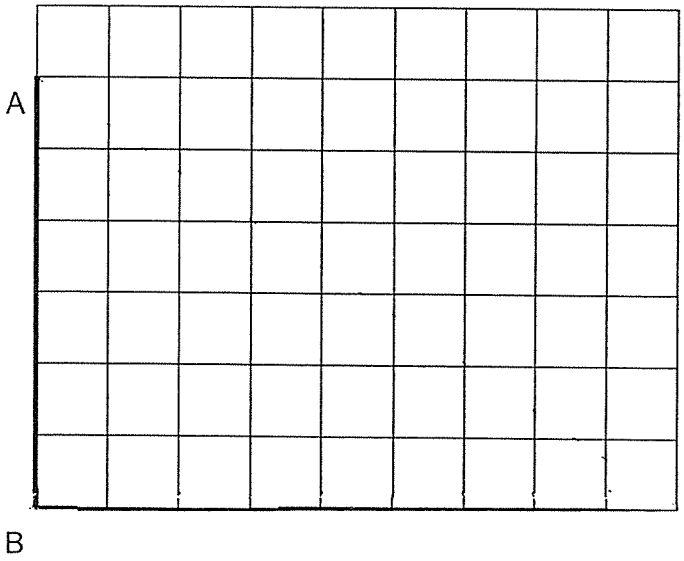
_____ [2]

8. A triangle R is drawn on the square grid as shown below.

(a) Find the area of triangle R.



(b) Within the square grid below, draw and label a right-angled triangle ABC such that triangle ABC is three times the area of triangle **R**. Line AB has been drawn. [1]



(c) Measure the line AC to the nearest centimetre.

Ans (a): _____ [1]

(c): _____ [1]

9. There are 8 boys and 14 girls. An equal number of sweets were given to each child. When the girls gave $\frac{2}{3}$ of their sweets to the boys, the boys had 264 more sweets than the girls. How many sweets did the girls give to the boys?

Ans: _____ [3]

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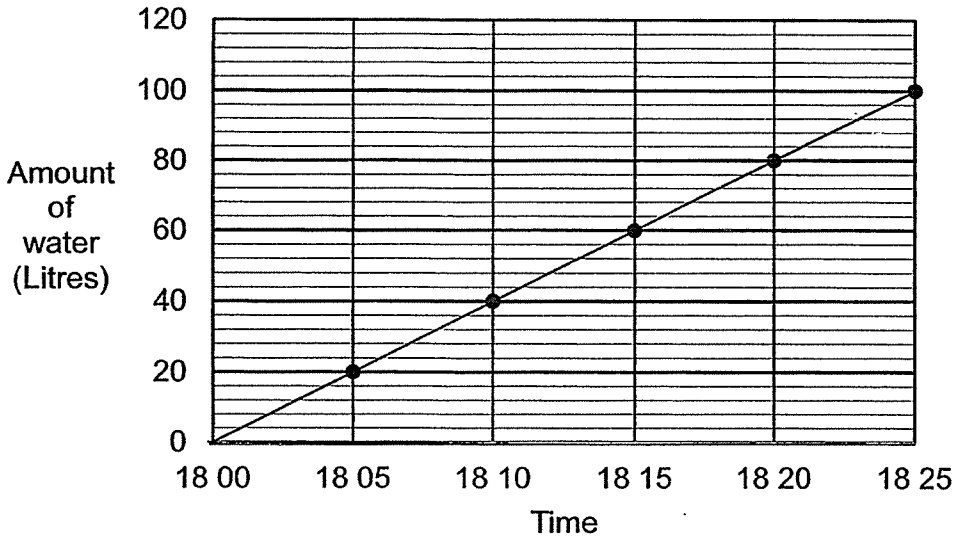
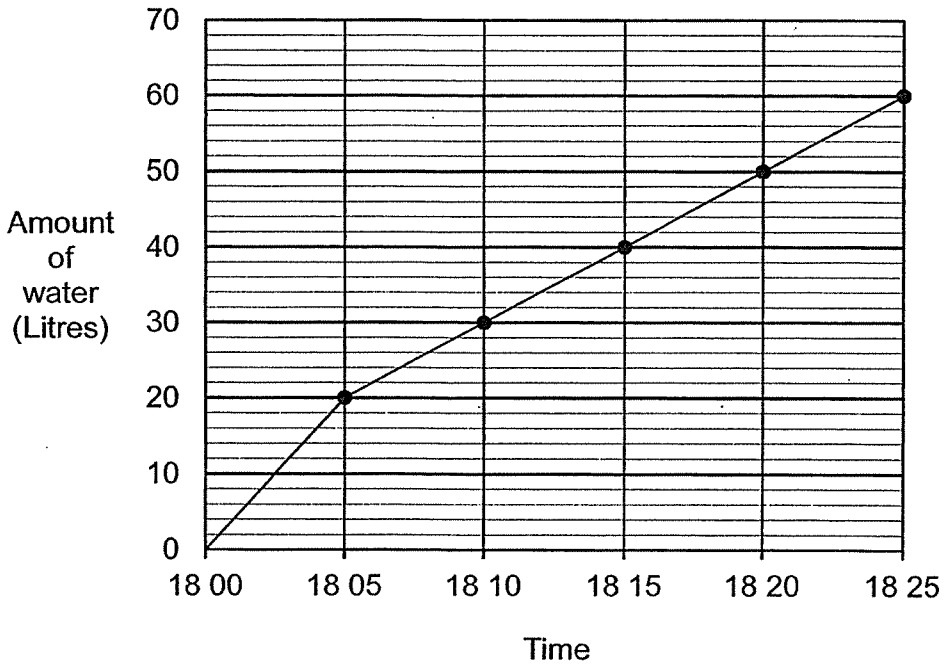
10. The line graph shows the amount of water that flows from Tap A into an empty tank over 25 minutes.



Tap B was turned on at 18 05 to drain water out of the same tank.
Both taps were then turned off at 18 25.

The line graph shows the volume of water **left** in the tank from the start.



(a) What was the amount of water in the tank when Tap B was turned on at 18 05?

(b) What was the amount of water left in the tank at 18 15?

(c) How many litres of water was drained out in a minute?

Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [1]

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11. In the pattern below, each square is either empty or filled with a circle.

Fig 1

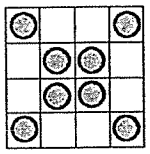

Fig 2

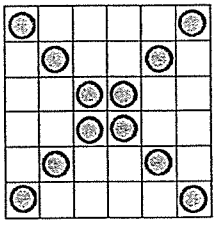

Fig 3

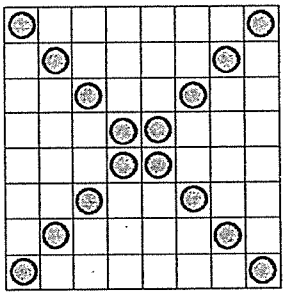

Fig 4

(a) How many circles are there in Figure 10?

(b) Which figure has 624 empty squares?

Ans: (a)_____ [1]

(b)_____ [2]

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12. Jack had 3 times as much money as Bill at first. Bill received some money and Jack spent some money. The amount Bill received was 4 times the amount Jack spent. After that, both of them had the same amount of money. They had a total of $332.80 in the end.

(a) What fraction of his money did Jack spend?

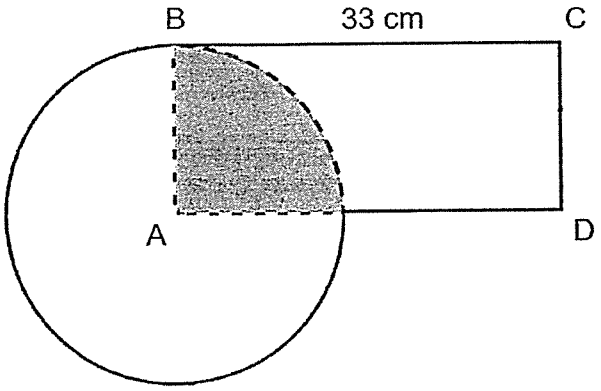
(b) How much money did Bill receive?

Ans: (a) _____ [2]

(b) _____ [2]

Do not write in this space

13. In the figure below, rectangle ABCD overlaps with a circle with centre A. The area of the shaded part is $\frac{1}{3}$ the area of the rectangle. The total area of the unshaded parts of the figure is 770 cm^2. Take $\pi = \frac{22}{7}$



(a) Find the length of AB.

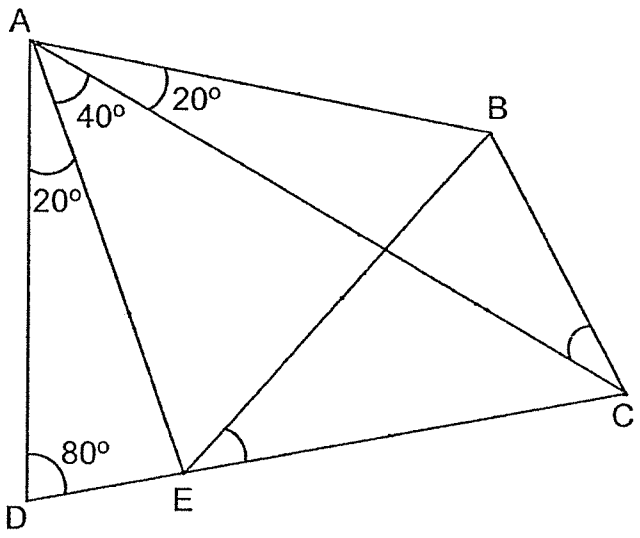
(b) What is the perimeter of the figure?

Ans: (a) _____ [3]

(b) _____ [2]

Do not write in this space

14. In the figure, ABCD is made up of triangles ABC, ACE and AED. AD = EB. CED is a straight line.



(a) Find ∠BEC.

(b) Find ∠ACB.

Ans: (a) _____ [2]

(b) _____ [2]

Do not write in this space

15. Dani collected $235 in a donation drive on Saturday. The number of $2, $5 and $10 notes were in the ratio of 6 : 3 : 2. Dani collected another $68 on Sunday. As a result, the number of $2 notes was increased by 30% and the number of $5 notes was increased by 40%. The remaining notes were $10.

(a) How many $10 notes were collected on Saturday?

(b) What was the percentage increase in the number of $10 notes collected from Saturday to Sunday?

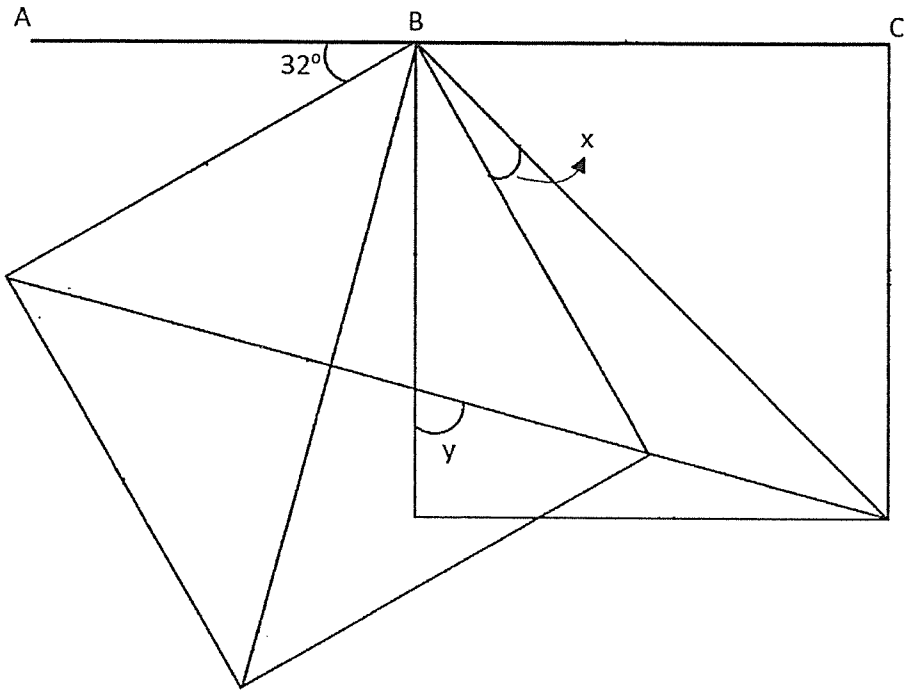
Ans: (a)_____ [2]

(b)_____ [3]

16. The figure is made up of two squares. ABC is a straight line.

(a) Find $\angle x$

(b) Find $\angle y$



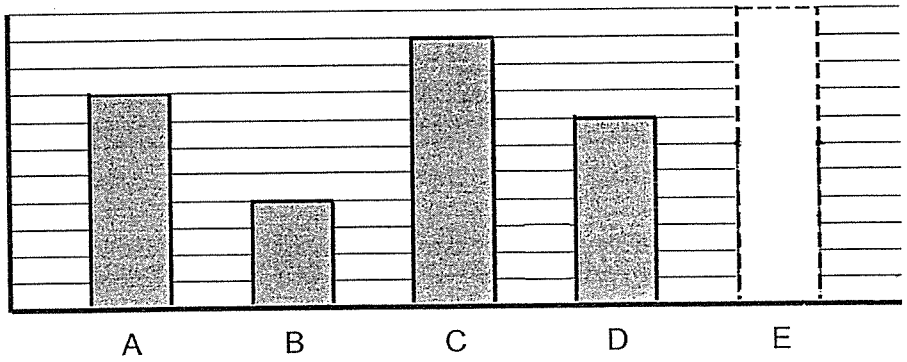
Ans: (a) _____ [2]

(b) _____ [2]

Do not write in this space

17. In a donation drive, five classes A, B, C, D and E baked some cupcakes for sale. The bar graph shows the number of cupcakes baked by classes A, B, C and D.
The number of cupcakes baked is not shown on the scale.
The bar for the number of cupcakes baked by class E has not been drawn.

Number of Cupcakes Baked By Each Class



(a) The average number of cupcakes baked by the five classes is the same as the number of cupcakes baked by class D. How many cupcakes did class E bake? Draw your answer on the bar graph. [2]

(b) The table shows the number of cupcakes sold by classes A, B, C and D.

Classes	Number of Cupcakes Sold	
	Small	Large
A	44	20
B	8	24
C	48	32
D	22	34
E		

Classes D and E sold 80% of their baked cupcakes.
How many cupcakes did class D bake?

(c) Write down one possible set of values for the number of small and large cupcakes sold by class E.

Please show your working and answers on the next page.

Ans: (b) _____ [1]

(c) Small:_____

Large: _____ [2]

-- End of Paper 2 --

SCHOOL : PEIHWA PRESBYTERIAN PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	2	3	2	1	1	2	4	2

Q 11	Q12	Q13	Q14	Q15
3	2	4	3	3

PAPER 1 BOOKLET B

Q16) $\frac{5}{6}$

Q17) 62.5

Q18) 3.75

Q19) 4

Q20) May to June

Q21) 0.52kg

Q22) 720

Q23) 6 x 4 = 24
5 x 6 = 30
24 – 30/3 + 8 = 22

Q24) 2/15

Q25) a) 8h 15min
b) 0810

Q26) a) South west
b) E

Q27) 64cm²

Q28) $7.40

Q29) **111h**

Q30) True
True
False

PAPER 2

Q1) 20 x 10 x 30 x 2/5 = 2400
20 x 10 x 18 = 3600
3600 – 2400 = 1200

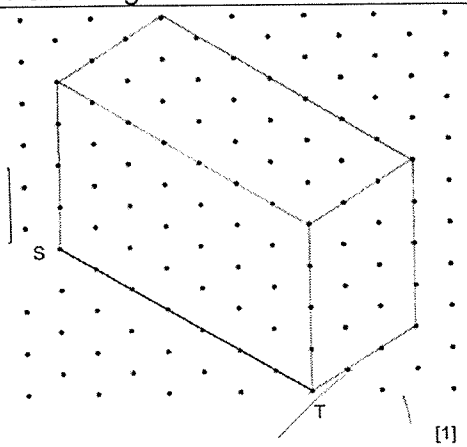
Q2) March and may

Q3) a) $\frac{y+5}{2}$
b) 16

Q4) 192

Q5) a) 123
b) Parallelogram > are not

Q6)

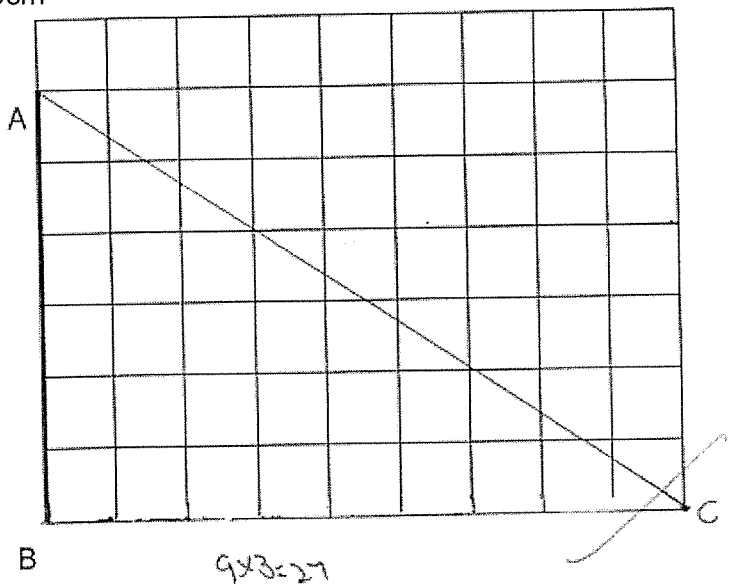


[1]

a)
b) 84
c) 32

Q7) a) 0.4 + 1.20 + 1.20 = 280
= $2.80
b) Sea ; 2.5kg

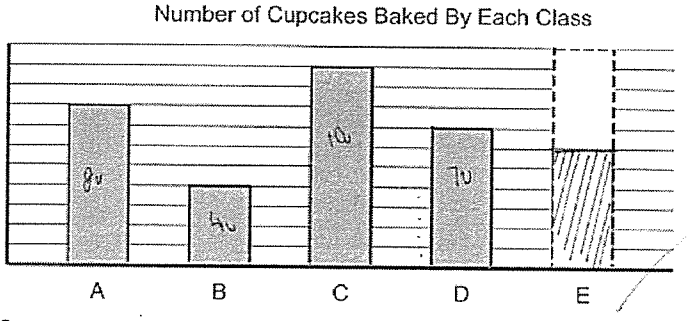
Q8) a) 9cm²



b)
c) 11cm

9x3=27

Q9) 308

Q10)	a) 20 l b) 40 l c) 2 l
Q11)	a) 40 b) 13
Q12)	a) 2/15 b) $102.40
Q13)	5u = 770 1u = 154 3u = 462 462 ÷ 33 = 14 14 x 2 = 28 33 – 14 = 19 a) 14cm b) 132cm
Q14)	a) 40° b) 30°
Q15)	a) 10 b) 20%
Q16)	a) 180 – 32 = 148 1 + 8 – 90 – 90 = -32 45 – 32 = 13 180 – 90 – 13 = 77 13° b) 77°
Q17)	 a) b) 70 c) Small 39 Large 9

RAFFLES GIRLS' PRIMARY SCHOOL
PRELIMINARY EXAMINATION
MATHEMATICS (PAPER 1)
PRIMARY 6

Name: _____ ( )

Form Class: P6 _____ Math Teacher : _____

Date: 19 Aug 2021 Duration: 1 hour

Your Paper 1 Score (Out of 45 marks)	
Your Paper 2 Score (Out of 55 marks)	
Your Total Score (Out of 100 marks)	
Parent's Signature	

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. **NO** calculator is allowed for this paper.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.
All diagrams are not drawn to scale.

---

1. Express two million, five hundred and two thousand, two hundred and five as a numeral.

   (1) 2 002 705

   (2) 2 502 025

   (3) 2 502 205

   (4) 2 520 250

2. Which of the following is greater than $\frac{4}{7}$?

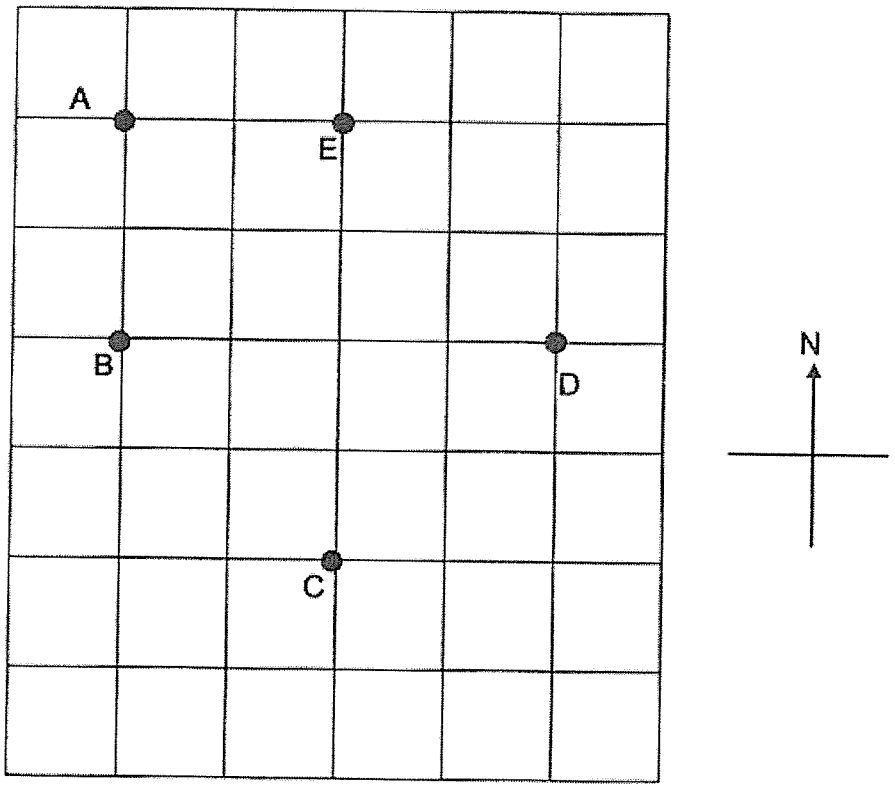
   (1) $\frac{1}{2}$

   (2) $\frac{2}{3}$

   (3) $\frac{3}{8}$

   (4) $\frac{4}{9}$

3.



Which point is South-West of Point E?

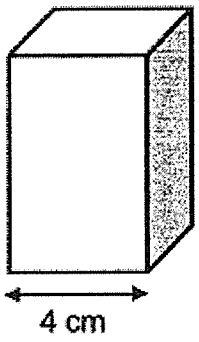
(1) A

(2) B

(3) C

(4) D

4. The area of the shaded face of the cuboid is 18 cm^2. Its length is 4 cm. Find the volume of the cuboid.



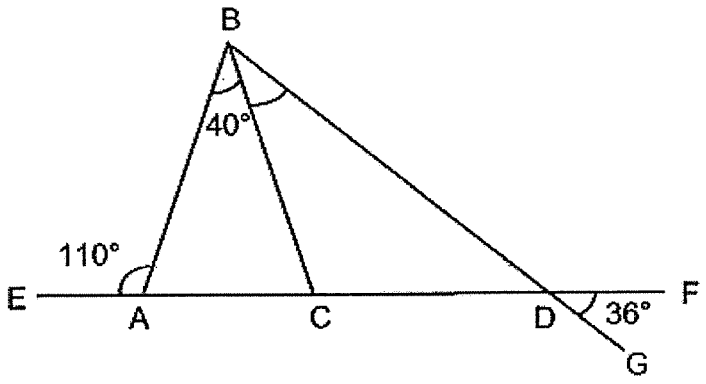
(1) 4.5 cm^3

(2) 22 cm^3

(3) 72 cm^3

(4) 288 cm^3

5. In the figure, EACDF and BDG are straight lines. $\angle ABC = 40°$, $\angle EAB = 110°$ and FDG = 36°. Find $\angle CBD$.



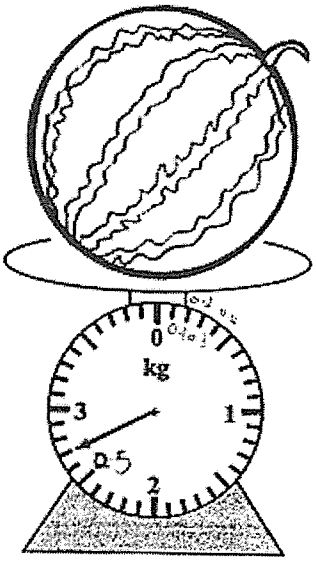
(1) 34°

(2) 36°

(3) 70°

(4) 74°

6. What is the mass of the watermelon?



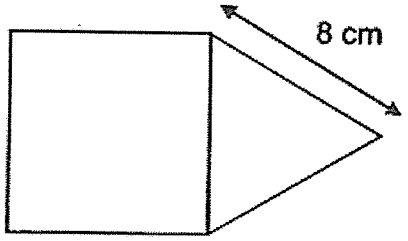
(1) 2.7 kg

(2) 2.8 kg

(3) 3.2 kg

(4) 3.3 kg

7. The figure consists of a square and an equilateral triangle. Find its perimeter.



(1) 40 cm

(2) 48 cm

(3) 56 cm

(4) 96 cm

8. In a library, $\frac{1}{4}$ of the books are magazines. Half of the remaining books are fiction books. What is the ratio of the number of fiction books to the number of magazines?

(1) 1 : 2

(2) 2 : 1

(3) 2 : 3

(4) 3 : 2

9. Jamie spent 70% of her savings on a laptop and had \$2100 left. How much savings did she have at first?

(1) \$7000

(2) \$4900

(3) \$3000

(4) \$2100

10. The cost of a pen is \$*n*. A book costs \$6 more than a pen. Express the total cost of 2 books and 3 pens in terms of *n*.

(1) \$(5n – 12)

(2) \$(5n – 30)

(3) \$(5n + 12)

(4) \$(5n + 30)

11. The price of a bag was $800 before GST. How much did Mrs Tan pay for the bag including the 7% GST?

(1) $56
(2) $744
(3) $807
(4) $856

12. Richelle had some of 20-cent and 50-cent coins. The total value of the coins was $40. For every five 20-cent coins, there were two 50-cent coins. How many coins did Richelle have altogether?

(1) 20
(2) 40
(3) 100
(4) 140

13. Jane baked some butter and chocolate cookies. After eating 7 butter cookies, she found that the number of chocolate cookies left was 3 times the number of butter cookies left. She packed the remaining cookies equally into 9 boxes. Each box contained 16 cookies. How many butter cookies did Jane bake?

(1) 36
(2) 43
(3) 108
(4) 115

14. By rounding each of the numbers to the nearest whole number, estimate the value of:

$$11.5 \times 8.97 - 4.54$$

(1) 48

(2) 94

(3) 103

(4) 104

15. Egg tarts are sold in boxes of 2 for $3. Fruit tarts are sold in boxes of 4 for $4. Mrs Asfarah wants to buy an equal number of egg tarts and fruit tarts. What is the maximum number of tarts she can buy with $85?

(1) 32

(2) 34

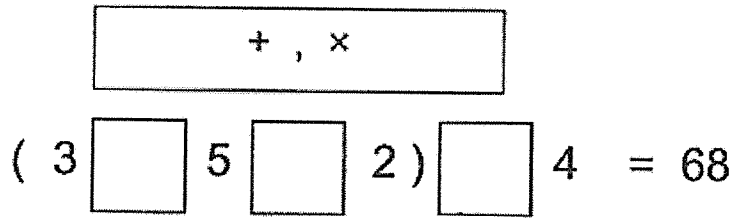
(3) 64

(4) 68

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

---

16. Fill in the boxes with a correct operation symbol.



17. Kate painted a picture in 2 h 45 min. She completed her painting at 21 30. What time did she start painting? Give your answer in 12-hour clock.

Ans: _____ p.m.

18. Find the value of $42 \div 4$. Give your answer as a mixed number in its simplest form.

Ans: _____

19. Find the value of $201.4 - 9.86$.

Ans: _____

20.

Day	Mon to Thur	Fri to Sat	Sun
No of hours worked per day	8	5	0

The table shows the number of hours Terry worked in a week delivering parcels. What is the average number of hours he worked per day?

Ans: _____ h

Questions **21** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. All diagrams are not drawn to scale. Answers in fractions or ratio must be expressed in the simplest form.

---

21. What is the missing number in the box? Give your answer as a fraction in the simplest form.

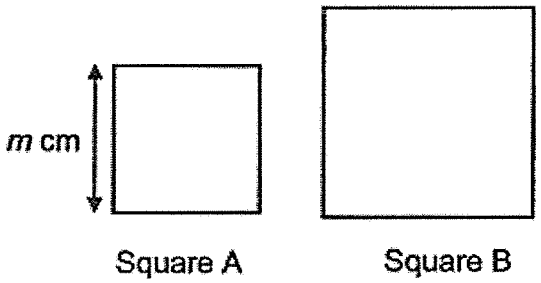
$$\frac{1}{2} + \boxed{?} = \frac{9}{10} - \frac{1}{5}$$

Ans: _____

22. A wooden plank is 1.08 m long. Mr Amir sawed it into 4 pieces. Each piece was 8 cm longer than the previous piece. What was the length of the shortest piece? Give your answer in cm.

Ans: _____ cm

23. The figure shows two squares. The perimeter of Square B is 12 cm more than the perimeter of Square A. Given that the total perimeter of the two squares is 148 cm, find the value of *m*.

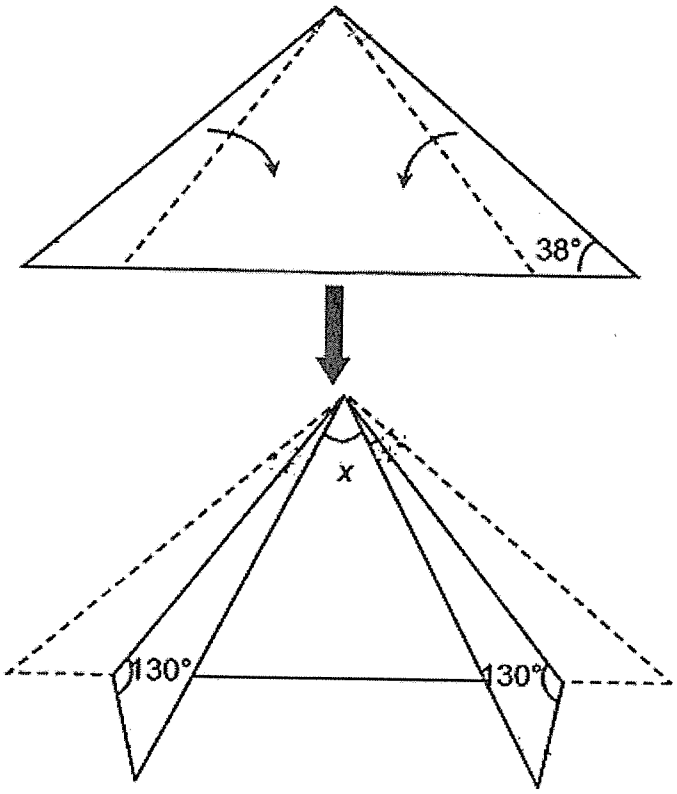


Ans: _____

24. Mariko could pack some pens into bags of 8 or 12 with no remainder. When she packed the pens into bags of 10, she needed 4 more pens. What was the smallest possible number of pens that Mariko had?

Ans: _____

25. A piece of paper in the shape of an isosceles triangle is folded along the dotted lines. Find $\angle x$.

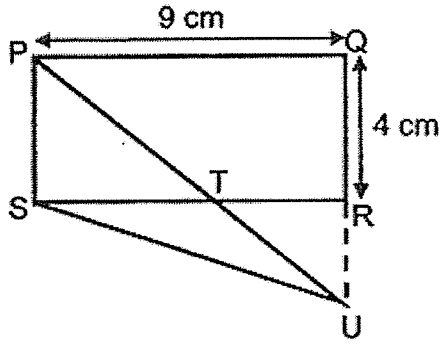


Ans: _____°

26. Mary wanted to buy 50 lemons. The lemons were sold either for 95 cents each or at $3 for a bag of 4 lemons. What was the least amount of money that Mary would need to pay for the lemons?

Ans: $_____

27. PQRS is a rectangle and PUS is a triangle. The area of triangle PTS is 12 cm². Find the area of the PQRTUS.



Ans: _____cm²

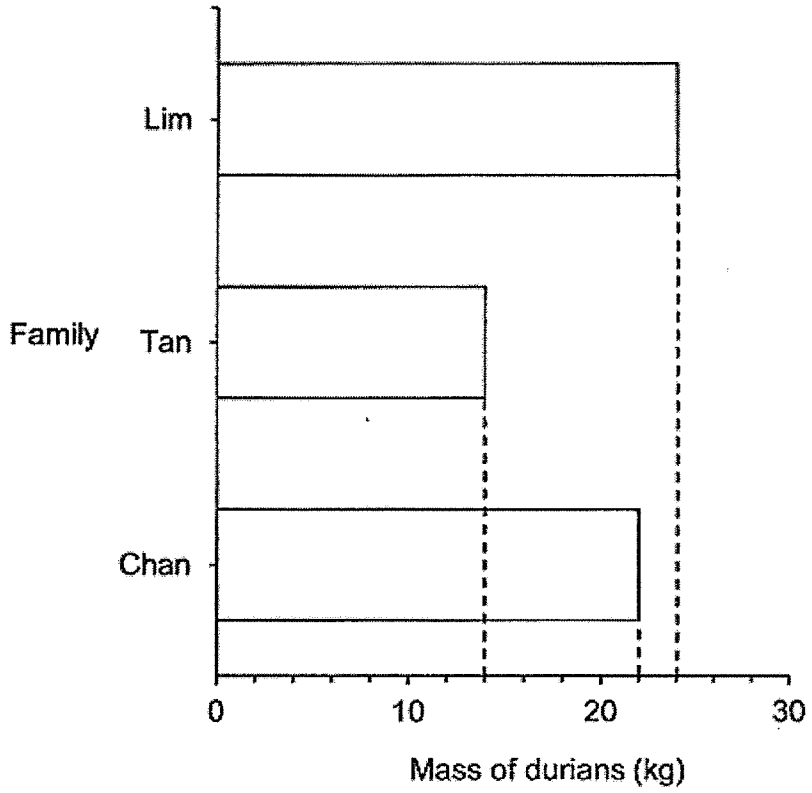
28. The table shows the rental rates of bicycles.

	Adult	Children
Rate	$10 per hour or part thereof	$5 per hour or part thereof

Mr Chandran paid $60 to rent a bicycle for himself and a bicycle each for his 2 children. What was the maximum number of hours they had rented their bicycles?

Ans: _____ h

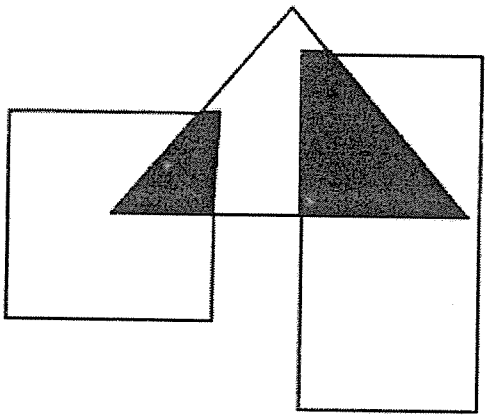
29. The graph shows the mass of durians bought by the different families.



The 3 families paid a total of $1200 for the durians they bought. How much did 1 kg of durian cost?

Ans: $_____

30.



The ratio of the area of the square to the area of the triangle to the area of the rectangle is 5 : 8 : 20. If $\frac{1}{5}$ of the rectangle and $\frac{3}{4}$ of the triangle is shaded, what fraction of the figure is shaded? Give your answer in the simplest form.

Ans: _____

End of Paper
☺ Please check your work carefully ☺

RAFFLES GIRLS' PRIMARY SCHOOL
PRELIMINARY EXAMINATION
MATHEMATICS (PAPER 2)
PRIMARY 6

Name: _____ ( )

Form class: P6 _____ Math Teacher :

Date: 19 Aug 2021 Duration: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

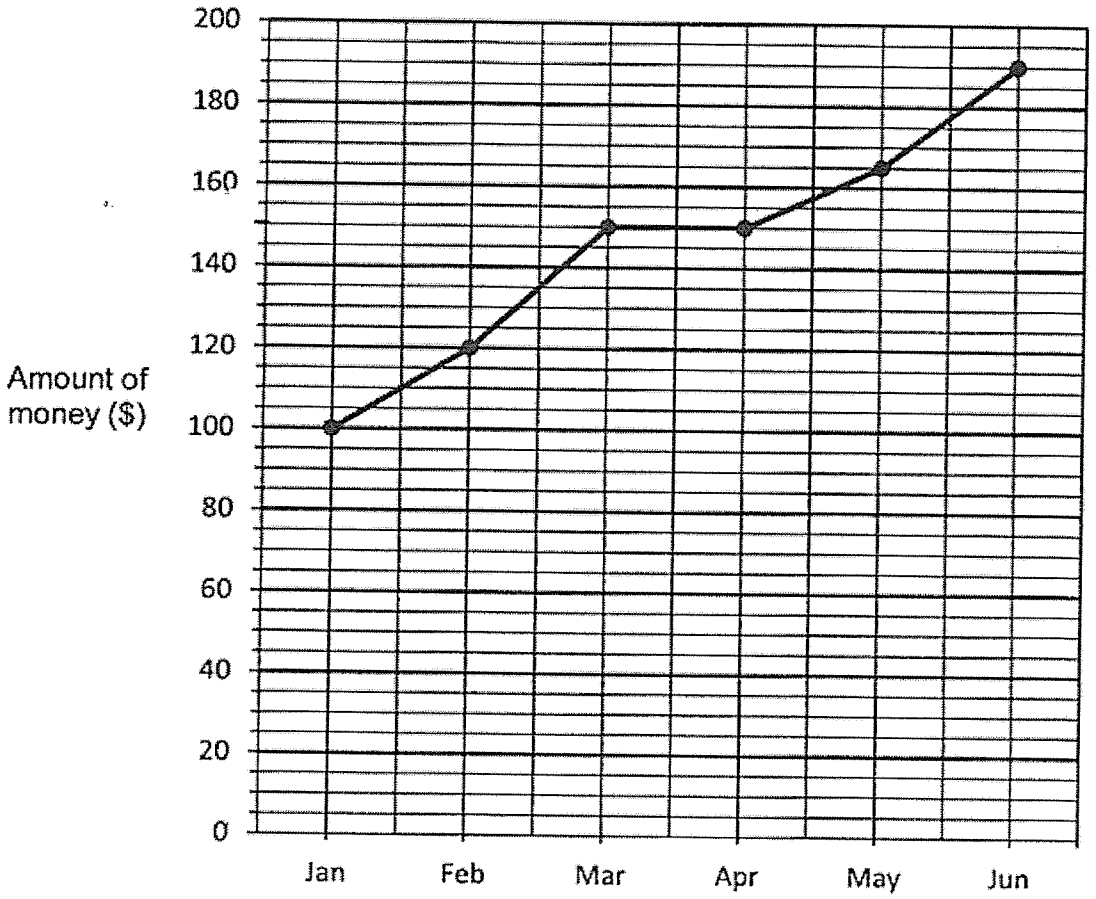
Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided.
Figures are not drawn to scale.
For questions which require units, give your answers in the units stated.
Answers in fractions or ratio must be expressed in the simplest form. (10 marks)

---

1. Ali's salary was $4800 in June. His salary was $3840 in July. What was the percentage decrease in his salary?

Ans : _____ % [2]

2. The line graph shows the amount of money Siti had in her bank on the last day of every month.



Every month, Siti would deposit some money into the bank without making any withdrawal.

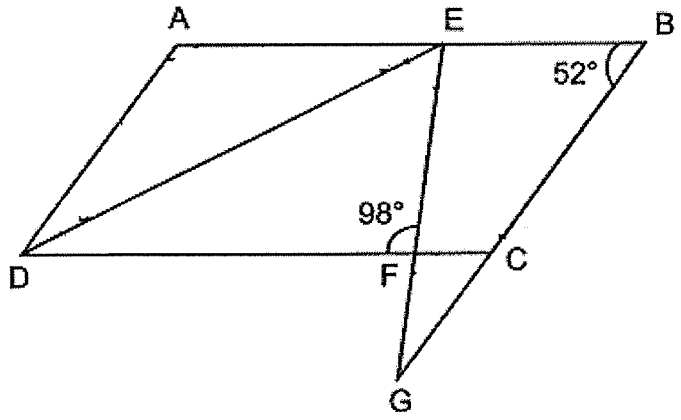
(a) In which month did she not make any deposit?

(b) In which month did she deposit the most amount of money?

Ans : (a)_____ [1]

(b)_____ [1]

3. In the figure, ABCD is a parallelogram. BCG and EFG are straight lines, AE = AD , ∠EBG = 52° and ∠EFD = 98°. Find ∠DEF.



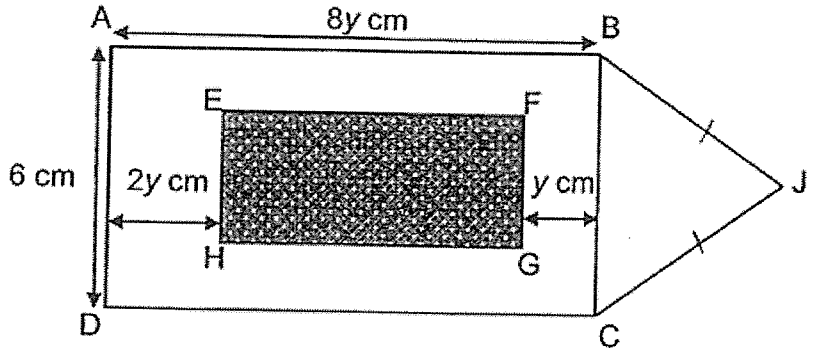
Ans : _____° [2]

4. Jaz, Kumar and Farah shared the cost of a laptop. Jaz paid $\frac{1}{4}$ of the total share of Kumar and Farah. Kumar paid $\frac{1}{2}$ of the total cost of the laptop. Farah paid $186 more than Jaz. How much did the laptop cost?

Ans : $_____ [2]

5. The figure is made up of two rectangles ABCD, EFGH and a triangle BCJ.

AD = 6 cm, AB = 8y cm and BJ = CJ.



Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick(✓) to indicate your answer.

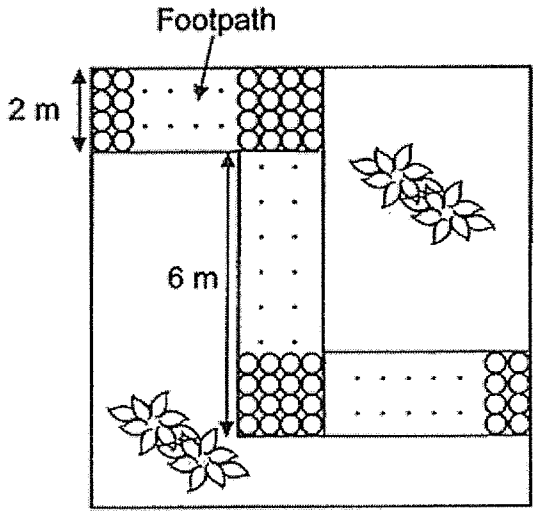
Statement	True	False	Not possible to tell
(a) The area of rectangle ABCD is $48y$ cm^2.			
(b) The area of the shaded area EFGH is $33y$ cm^2 lesser than the area of ABCD.			
(c) The perimeter of ABJCD is $(16y + 18)$ cm.			

[2]

For questions **6** to **17**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question.
Figures are not drawn to scale.
Answers in fractions or ratio must be expressed in the simplest form. (45 marks)

6. The figure shows a square garden with a footpath. The area of the garden is 100 m^2. The width of the footpath is 2 m. Mr Chan wants to place 128 round stones each with a diameter of 0.5 m on the footpath. The stones cannot overlap one another. Use the calculator value of π to find the area of the footpath **not** covered by the stones in square metres.

   Round your answer to 1 decimal place.

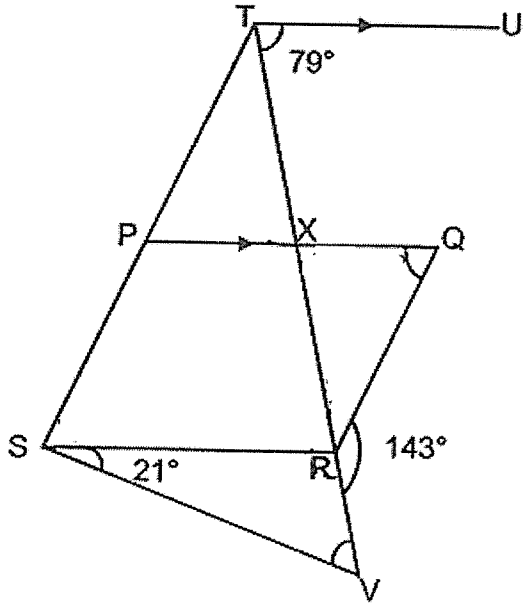


Ans : _____ [3]

7. In the figure, PQRS is a parallelogram. TXRV and TPS are straight lines. TU is parallel to PQ. $\angle UTX = 79°$, $\angle QRV = 143°$ and $\angle RSV = 21°$.

(a) Find $\angle XQR$.

(b) Find $\angle SVR$.



Ans: (a)_____ [1]

(b)_____ [2]

8. Mary decorated her house with balloons for a party. She arranged 14 balloons hanging on the rope from one end of the wall to another end of the wall as shown in Figure 1.

The balloons were arranged at an equal distance of 30 cm apart.

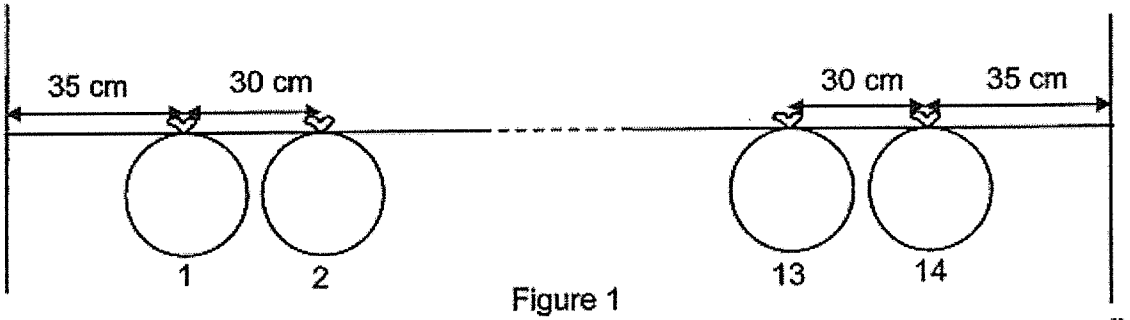


Figure 1

wall wall

On the actual day of the party, she burst 4 of the balloons and had to rearrange the balloons with a new gap as shown in Figure 2.

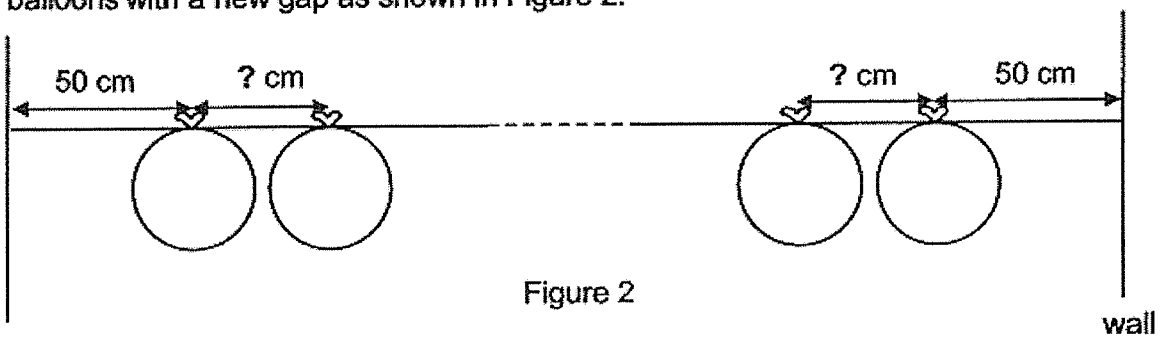


Figure 2

wall wall

What is the length of the new gap between any two consecutive balloons?

Ans : _____ [3]

9. The mass of a volleyball is 0.21 kg more than a tennis ball. The mass of 2 volleyballs is the same as the mass of 9 tennis balls. Find the total mass of 1 volleyball and 1 tennis ball in grams.

Ans : _____ [3]

10. Tom spent $1440 of his salary on food, gave 40% of the remaining money to his parents and saved the rest. He saved 15% of his salary every month.

(a) What percentage of his salary did he give to his parents?

(b) What was Tom's monthly salary?

Ans: (a)_____ [1]

(b)_____ [2]

11. Two printing machines, A and B, were used to print the pages of some books. Machine A can print 110 pages per minute. Machine B can print 2 pages per second.

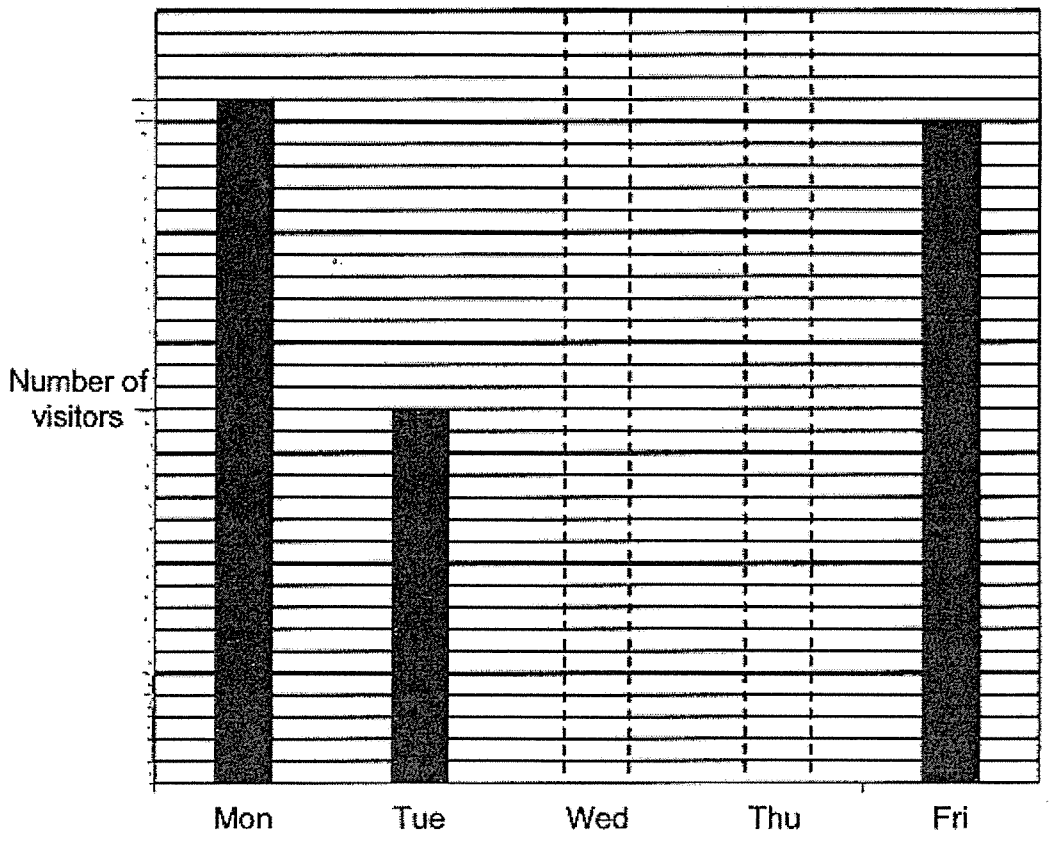
(a) What is the difference in the number of pages printed by the machines in 1 minute?

(b) Both machines were used to print the pages of some books. Machine A started printing at 8 a.m. Machine B started printing at 8.45 a.m., while Machine A was still printing. At what time did both machines print the same number of pages?

Ans: (a)_____ [1]

(b)_____ [3]

12. The bar graph shows the number of visitors to an art gallery.



(a) There were 56 more visitors on Monday than Tuesday. How many visitors were there at the gallery on Monday?

(b) The average number of visitors at the gallery for Wednesday to Friday was 75. There were more visitors on Wednesday than Thursday. Given that the difference between the number of visitors on Wednesday and Thursday was the smallest possible number, what was the number of visitors on Thursday?

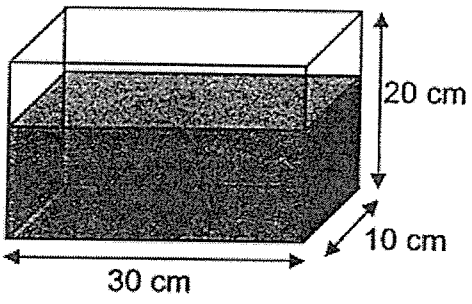
Ans: (a) _____ [2]

(b) _____ [2]

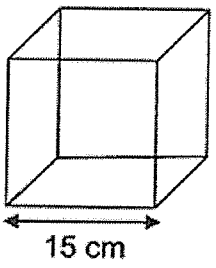
13. Tank X is 30 cm long, 10 cm wide and 20 cm high. It is $\frac{5}{8}$ filled with water. Some water is poured into an empty cubical Tank Y until it is completely filled. The length of Tank Y is 15 cm.

(a) What is the volume of water in Tank X at first? Give your answer in cm^3.

(b) What is the volume of water left in Tank X? Give your answer in litres.



Tank X



Tank Y

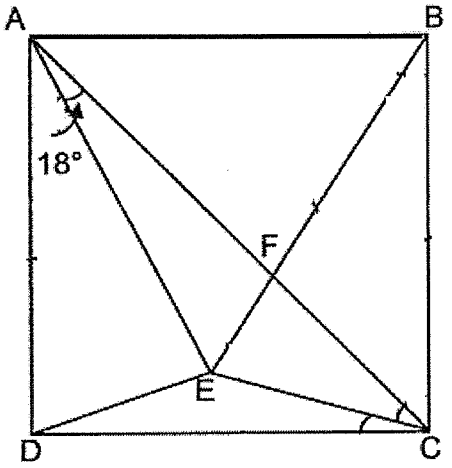
Ans: (a) _____ [2]

(b) _____ [2]

14. ABCD is a square. BFE and AFC are straight lines. BC = BE and ∠EAF = 18°.

(a) Find ∠ABE.

(b) Find ∠ECD.



Ans: (a) _____ [2]

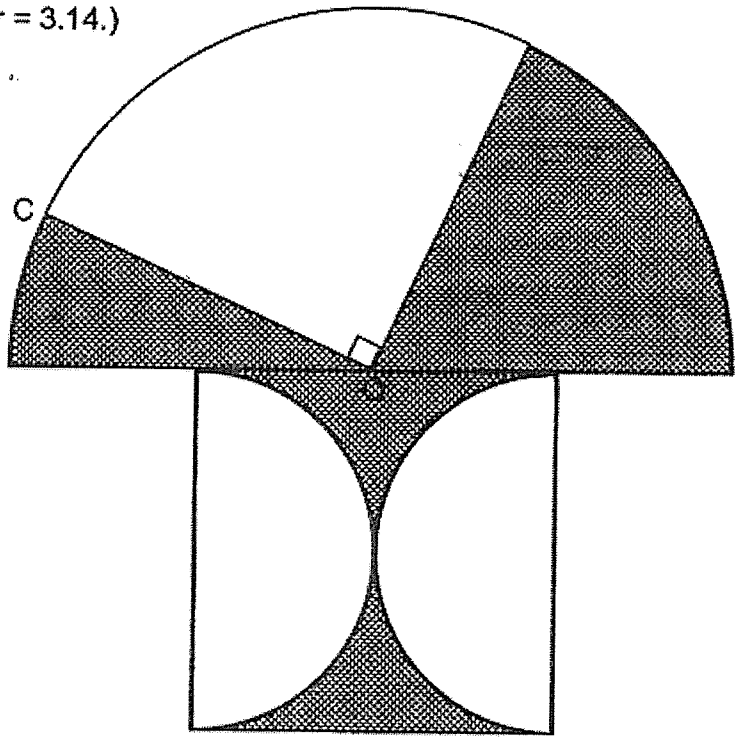
(b) _____ [2]

15. The figure consists of a square, a big semicircle, 2 small semicircles and a quarter circle. O is the centre of the big semicircle and quarter circle. The diameter of the big semicircle is 4 times the radius of the small semicircle. The length of OC is 8 cm.

(a) Find the diameter of the small semicircle.

(b) Find the perimeter of the shaded parts.

(Take $\pi = 3.14$.)



Ans: (a) _____ [1]

(b) _____ [3]

16. Mr Chew had 152 more mangoes than durians. He sold some mangoes and durians. The ratio of the number of mangoes sold to the number of durians sold is 3 : 1. The ratio of the number of durians sold to the number of durians left is 1 : 2. $\frac{2}{3}$ of the fruit left were mangoes.

(a) How many durians did he have left?

(b) How many mangoes did he have at first?

Ans: (a) _____ [3]

(b) _____ [2]

17. Tammy sold some shoes and backpacks and received \$16 107. Tammy received \$663 more from selling the backpacks than from selling the shoes. Each backpack cost \$69 less than each pair of shoes. The number of pairs of shoes sold was $\frac{3}{5}$ of the number of backpacks sold.

(a) How much money did she receive from selling the shoes?

(b) How many backpacks did she sell?

Ans: (a)_____ [1]

(b)_____ [4]

End of Paper
Please check your work carefully ☺

SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2 PRELIM

PAPER 1 BOOKLET A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	2	2	3	1	1	1	4	1	3

Q11	Q12	Q13	Q14	Q15
4	4	2	2	3

PAPER 1 BOOKLET B

Q16)	(3 x 5 + 2) x 4 = 68
Q17)	6 45 pm
Q18)	10 ½
Q19)	191.54
Q20)	6 h
Q21)	1/5
Q22)	15 cm
Q23)	17 cm
Q24)	24
Q25)	56°
Q26)	$37.90
Q27)	42 cm^2
Q28)	3 h
Q29)	$20
Q30)	6/33

PAPER 2

Q1)	$4800 - 3840 = 960$ $\frac{960}{4800} \times 100 = 20$
Q2)	$(a) April$ $(b) March$
Q3)	$180 - 26 - 98 = 56$ $180 - 52 = 128$ $(180 - 128) \div 2 = 26$ $52 - 26 = 26$
Q4)	$\$1860$
Q5)	(a) True (b) Not possible to tell (c) Not possible to tell
Q6)	$\pi \times 0.2 \times 0.25 = 0.0625\pi$ $0.0625\pi \times 128 = 8\pi$ $32 - 8\pi = 6.9$
Q7)	$180 - 143 = 37$ $180 - 37 - 79 = 64$ $360 - 79 - 37 - 143 = 101$ $180 - 101 - 21 = 58$ (a) 64 (b) 68
Q8)	$13 \times 30 = 390$ $35 \times 2 = 70$ $390 + 70 = 460$ $50 \times 2 = 100$ $460 - 100 = 360$ $360 \div 9 = 40cm$
Q9)	$0.21 \times 2 = 0.42$ $9 - 2 = 7$ $0.42 \div 7 = 0.06$ $0.06 + 0.21 = 0.27$ $0.27 + 0.06 = 0.33$ $0.33kg = 330g$

Q10)	$\frac{100}{60} \times 15 = 25$ $\frac{40}{60} \times 15 = 10$ $100 - 25 = 75$ $1440 \times \frac{100}{75} = 1920$ $(a) 10\%$ $(b) \$1920$
Q11)	$2 \times 60 = 120$ $120 - 110 = 10$ $110 \times 45 = 4950$ $4950 \div 10 = 496$ $495 \div 60 = 8R15$ $(a) 10$ $(b) 5.00pm$
Q12)	$56 \div 14 = 4$ $31 \times 4 = 124$ $75 \times 3 = 225$ $30 \times 4 = 120$ $225 - 120 = 105$ $105 - 1 = 104$ $104 \div 2 = 52$ $(a) 124$ $(b) 52$
Q13)	$30 \times 10 \times 20 = 6000$ $6000 \times \frac{5}{8} = 3750$ $15 \times 15 \times 15 = 3375$ $3750 - 3375 = 375$ $375ml = 0.375l$ $(a) 3750cm^3$ $(b) 0.375l$
Q14)	$45 - 18 = 27$ $45 + 18 = 63$ $180 - 63 - 63 = 54$ $90 - 54 = 36$ $(180 - 36) \div 2 = 72$ $90 - 72 = 18$ $(a) = 54°$ $(b) 18°$

Q15)	$8 \times 2 = 16$ $16 \div 4 = 4$ $4 \times 2 = 8$ $\frac{1}{4} \times 16 \times 3.14 = 12.56$ $8 \times 3.14 = 25.12$ $25.12 + 12.56 + 16 + 8 + 8 = 69.68$ $(a)\ 8cm$ $(b) 69.68cm$
Q16)	$ml: dl: t = 2: 1: 3 = 4: 2: 6$ $4u = 152$ $u = 38$ $2u = 76$ $7u = 266$ $(a) 76$ $(b) 266$
Q17)	$16107 - 663 = 15444$ $15444 \div 2 = 7722$ $7722 \div 3 = 2574$ $7722 + 663 = 8385$ $8385 \div 5 = 1677$ $2574 - 1677 = 897$ $897 \div 69 = 13$ $13 \times 5 = 65$ $(a) \$7722$ $(b) 65$

RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2021 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 August 2021

BOOKLET A

15 Questions
20 Marks
Duration of Paper 1 (Booklets A & B): 1 hour

Note:

1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
   (a) Page 1 to Page 6
   (b) Questions 1 to 15
6. You are not allowed to use a calculator.

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

---

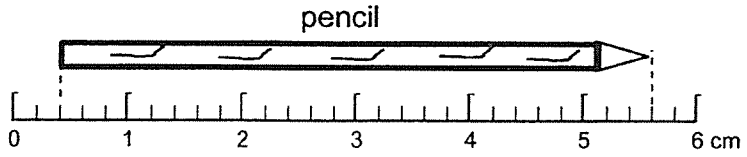
1 What does the digit 5 in 4.265 stand for?

(1) 5 ones
(2) 5 tenths
(3) 5 hundredths
(4) 5 thousandths

2 How many hundreds are there in ten million?

(1) 1000
(2) 10 000
(3) 100 000
(4) 1 000 000

3 What is the length of the pencil below?



(1) 5.1 cm
(2) 5.2 cm
(3) 5.3 cm
(4) 5.6 cm

4 The opening hours of 3 cafes on each day are listed in table below.

Cafe A	Cafe B	Cafe C
0900 to 1530 1700 to 1930	10.30 a.m. to 8 p.m.	1300 to 2330

Which of the following timeslots would you find that all the 3 cafes are open for the day?

(1) 11 a.m. to 1 p.m.
(2) 5.30 p.m. to 7 p.m.
(3) 9.30 a.m. to 12 noon
(4) 7.30 p.m. to 11.30 p.m.

5 The figure below is formed by using 2 identical squares of side 7 cm. Find the area of the figure.

(1) 28 cm^2
(2) 42 cm^2
(3) 49 cm^2
(4) 98 cm^2

6 In a game, three participants obtained scores in terms of w as shown in the table below.

Participant	Ali	Ben	Cindy
Score	$w + 5$	$4w - 2$	$30 - 2w$

If $w = 2$, find their total score.

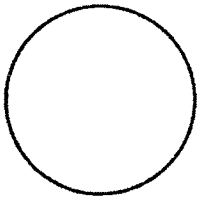
(1) 39
(2) 42
(3) 51
(4) 55

7 The table shows the number of people at a party. Half of them are girls and women. How many boys are there at the party?

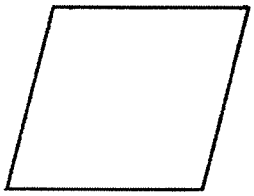
People	Men	Women	Boys	Girls
Number	7	9	?	15

(1) 24
(2) 17
(3) 16
(4) 15

8 Study the 4 figures below.

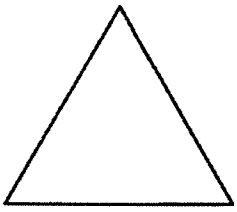


Circle



Rhombus

Parallelogram



Equilateral Triangle

How many of these figure(s) has/have at least 1 line of symmetry?

(1) 1
(2) 2
(3) 3
(4) 4

9 Mrs Wee had $\frac{3}{8}$ kg of sugar. She packed the sugar into bags such that the mass of each bag of sugar was $\frac{1}{20}$ kg. After packing the most number of such bags of sugar, how much sugar was left over?

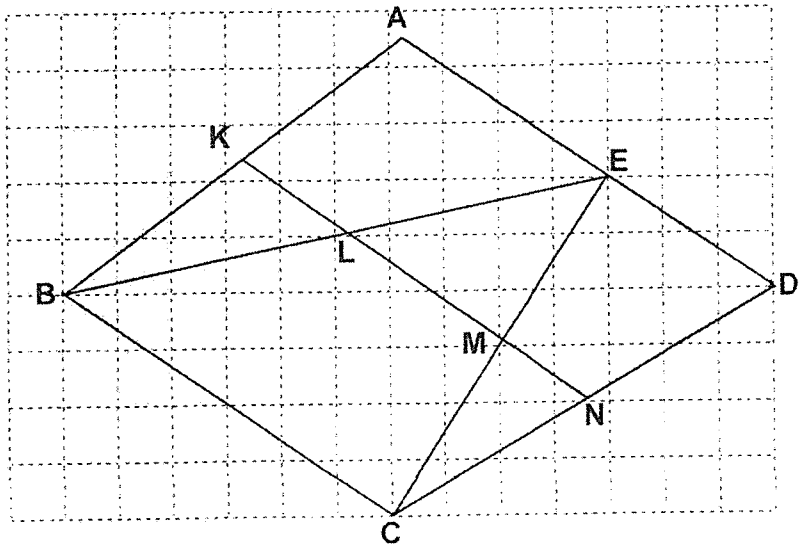
(1) $\frac{1}{2}$ kg

(2) $\frac{1}{3}$ kg

(3) $\frac{1}{40}$ kg

(4) $\frac{1}{60}$ kg

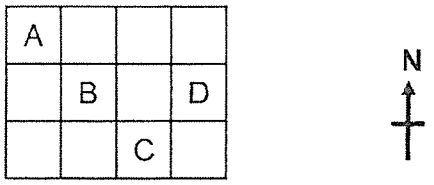
10 Study the figure drawn on the square grid below.



Which of the following describes the 2 listed figures correctly?

	Isosceles Triangle	Trapezium
(1)	CDE	AKND
(2)	ABE	BCNK
(3)	LME	BCDE
(4)	BCE	ABCD

11 On the square grid below, A, B, C and D are 4 towns.



Which of the following statements is correct?

(1) B is east of D
(2) A is north of B
(3) B is north-east of C
(4) C is south-west of D

12 The table shows the rate of charges for each game played at a carnival.

For the first 3 games	\$4 per game
After the 3 games	\$3 per game

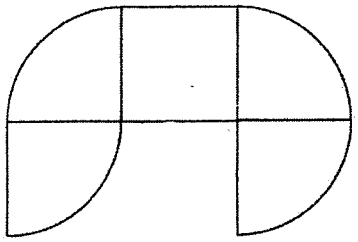
Janet went to the carnival with \$40 for playing games. At most, how many games could she play?

(1) 10
(2) 12
(3) 13
(4) 14

13 Jim used a calculator to find the average of 4 numbers. The sum of the 4 numbers was calculated accurately. While dividing, he made a mistake by pressing 6 instead of 4. He obtained the incorrect answer of 72. What should be the correct average?

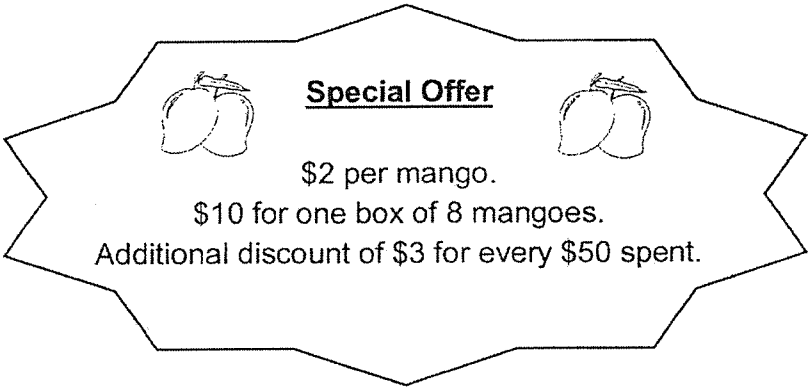
(1) 48
(2) 96
(3) 108
(4) 216

14 The figure is made up of 4 identical quarter circles and a square. The radius of each quarter circle is 5 cm. Using $\pi = 3.14$, find the perimeter of the figure.



(1) 35.7 cm
(2) 46.4 cm
(3) 51.4 cm
(4) 71.4 cm

15



Mrs Ling wanted to buy mangoes during the special offer. What was the least amount she had to pay to get 100 mangoes?

(1) $120
(2) $122
(3) $128
(4) $130

慈学校
恭宽信敏
RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2021 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 1

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 August 2021

BOOKLET B

15 Questions
25 Marks

In this booklet, you should have the following:
(a) Page 7 to Page 13
(b) Questions 16 to 30

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		20
BOOKLET B		25
TOTAL		45

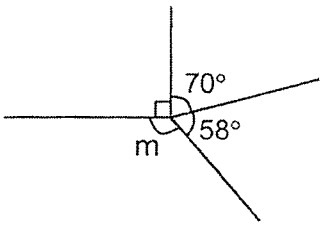
Parent's Signature : _____

Questions 16 to 20 carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

16 Find the value of $15 - 3 + 12 \div 3 \times 4$.

Ans: _____

17 The figure below is formed by straight lines. Find $\angle m$.



Ans: _____ °

18 The table below shows the number of books borrowed by students in a class from Monday to Thursday.

Day	Mon	Tue	Wed	Thu
Number of books borrowed	20	18	7	5

What fraction of the total number of books for the 4 days were borrowed on Monday?

Ans: _____

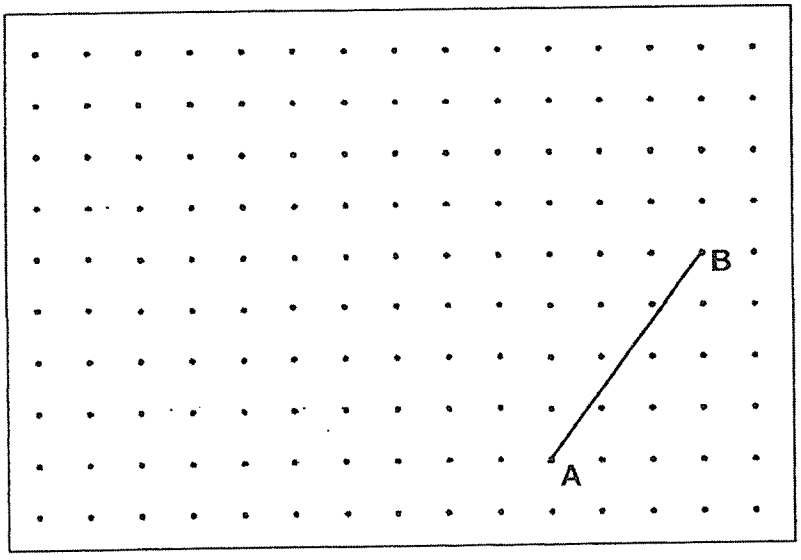
3

19 Machine A makes twice as many bottles as Machine B in a minute. Together, both machines make 360 bottles in 4 minutes. How many minutes will it take Machine A by itself to make 360 bottles?

Ans: _____ min

---

20 On the grid below, draw a straight line AC such that AC $\perp$ AB and AC is twice as long as AB.



2

Questions 21 to 30 carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(20 marks)

---

21 Find the value of

(a) $6.2 - 0.45$

(b) $23 \div 7$ as a decimal to nearest tenth

Ans: (a) _____

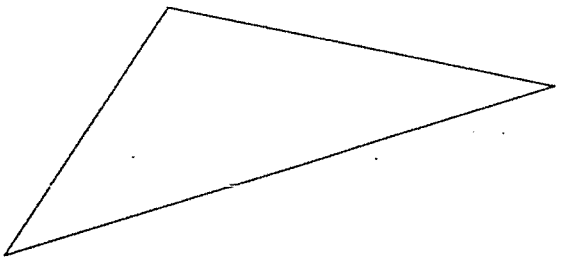
(b) _____

---

22 Study the triangle below. Measure and write down the value of

(a) the length of the longest side of the triangle to the nearest cm.

(b) the smallest angle in the triangle.



Ans: (a) _____ cm

(b) _____ °

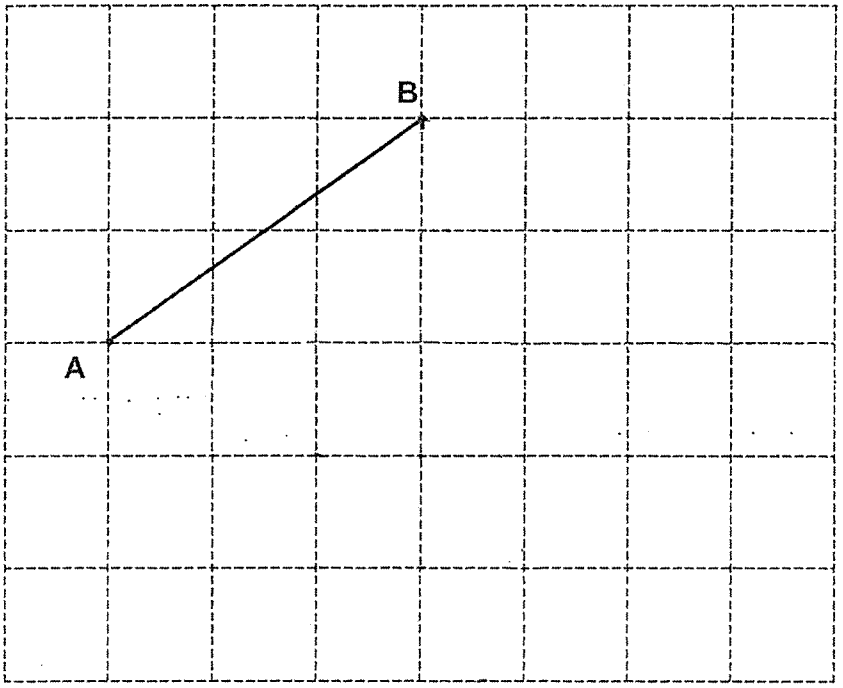
4

23 List 2 equivalent improper fractions of $2\frac{3}{8}$.

Ans: _____ , _____

---

24 On the square grid below, AB is a straight line. Draw straight lines to complete an isosceles triangle ABC.



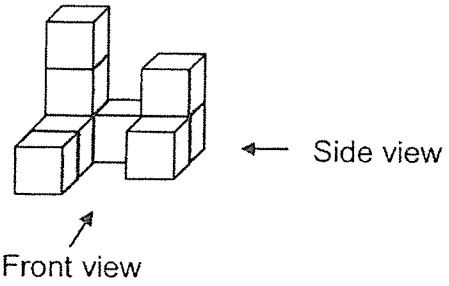
4

25 The sum of 2 numbers is 32. The sum of another 3 numbers is 36. What is the average of the 5 numbers?

Ans: _____

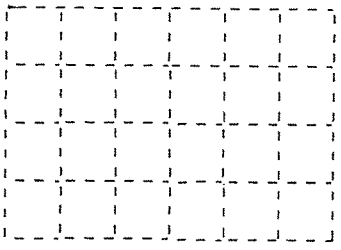
---

26 The solid below is made up of 9 identical cubes.

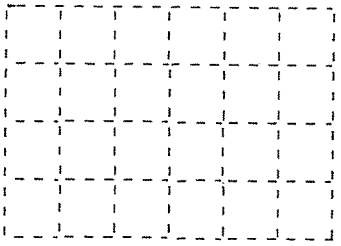


On the square grid below, draw the front and the side view of the solid.

Front View

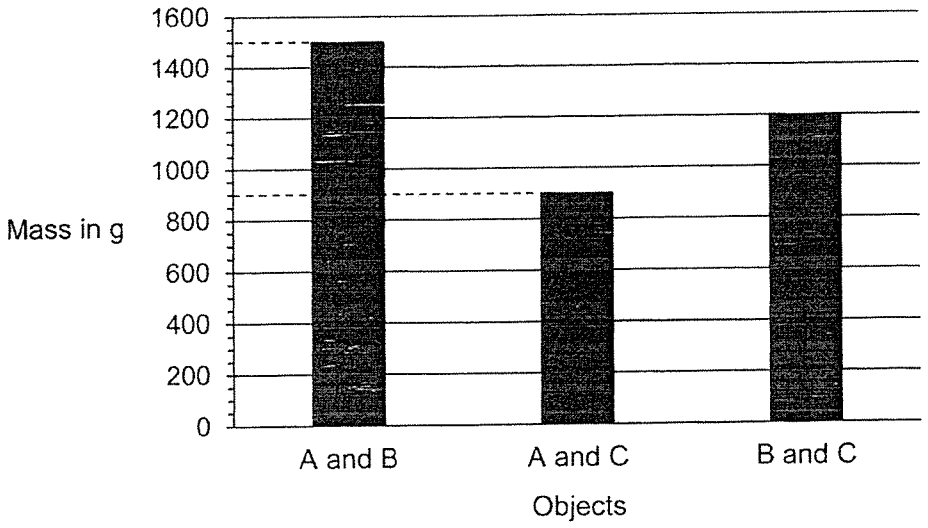


Side View



4

Use the information below to answer Questions 27 and 28.
There are three different objects A, B and C. The graph below shows the total mass of any two objects when they are weighed together.



27 What is the ratio of the total mass of objects A and B to the total mass of objects B and C? Give your answer in the simplest form.

Ans: _____

---

28 What is the average mass of the three objects?

Ans: _____ g

4

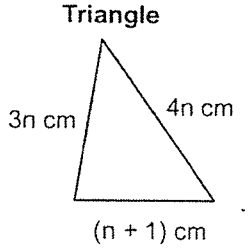
29 During a festive celebration, Bala and Tom helped to pack identical hampers for some families. Bala packed 10 hampers in 2.5 hours and Tom packed 12 hampers in 3 hours.

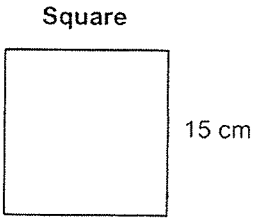
Based on the information above, each statement below is either true, false or not possible to tell. For each statement, put a tick (✓) in the correct column.

Statement	True	False	Not possible to tell
(a) At his packing rate, Bala would take 15 hours to pack 60 hampers.			
(b) On average, Tom took a longer time to pack a hamper than Bala.			

---

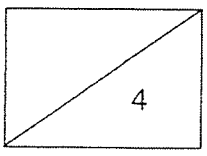
30 The perimeter of the square is 3 cm longer than the perimeter of the triangle as shown below. Find the value of n.





Ans: _____

END OF PAPER



RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2021 PRELIMINARY ASSESSMENT

MATHEMATICS
PAPER 2

Name : _____ ( )

Class : Primary 6 / _____

Date : 20 August 2021

17 Questions
55 Marks
Duration of Paper 2: 1 hour 30 minutes

Note:
1. Do not open this Booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the Booklet.
3. Do not waste time. If a question is difficult for you, go on to the next one.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this paper, you should have the following:
   (a) Page 1 to Page 15
   (b) Questions 1 to 17
6. You are allowed to use a calculator.

MARKS

	OBTAINED	POSSIBLE
PAPER 1		45
PAPER 2		55
TOTAL		100

Parent's Signature : _____

Questions 1 to 5 carry 2 marks each. Show your workings clearly in the space below each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

---

1 Ken sold a total of 240 large and small watermelons. The price of each large watermelon is $8. He sold 64 more small watermelons than the large ones. What was the total amount he had collected from selling all the large watermelons?

Ans: $_____

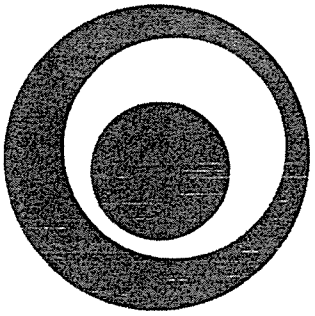
---

2 A reading club has members made up of only students from Primary 5 and Primary 6. There are 30 students from Primary 5 and 90 students from Primary 6. $\frac{2}{5}$ of the Primary 5 students and $\frac{7}{15}$ of the Primary 6 students are girls. What fraction of the members are girls?

Ans: _____

4

3 The figure is made up of 3 different circles. The radii of the three circles are 3 cm, 5 cm and 8 cm. Find the total **shaded** area of the figure in terms of π.



Ans: _____ cm^2

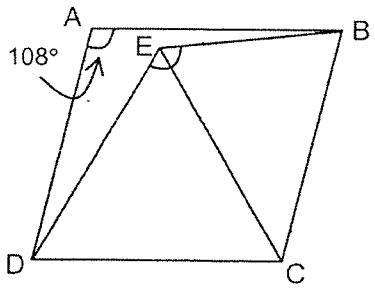
---

4 Jane bought 2y packets of 8 tarts each. Lina bought (y + 12) more tarts than Jane. Jane gave away 5y tarts and Lina ate 3 tarts. Find the total number of tarts left. Give your answer in terms of y.

Ans: _____

4

5 In the figure below, ABCD is a rhombus, CDE is an equilateral triangle and $\angle DAB = 108°$. Find $\angle DEB$.



Ans: _____ °

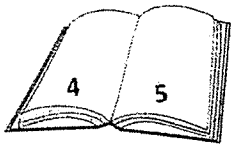
2

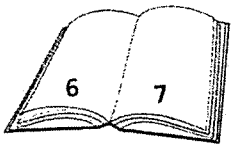
For Questions 6 to 17, show your workings clearly in the space below each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question.

(45 marks)

---

6 A book has 30 pages with no missing pages. Two examples of the two page numbers facing each other are shown below.





(a) Page 4 and Page 5 is an example of pages facing each other, with their page numbers being multiples of 4 and 5 on each page.

State another two pages facing each other with their page numbers being multiples of 4 and 5 on each page.

(b) State a page number in this book that has only 6 factors? Find the sum of the 6 factors of the page number you have stated.

Ans: (a) Page _____, Page_____ [1]

(b) Page _____ [1]

Sum is _____ [1]

3

7 Helen received a coupon as shown below. A printing error had covered the price of prawns before discount.

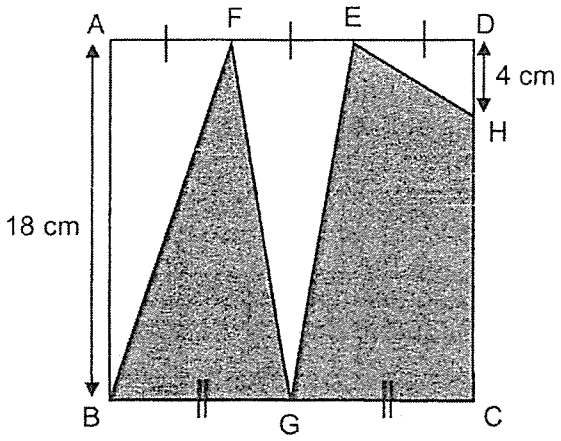
Membership coupon	
Usual Price before discount	**Member's Discount**
Prawns at $ [redacted] per kg	30%
Fish at $13 per kg	40%

Helen went to purchase the 2 items. She paid a total of $48 to buy 1 kg of prawns and 4 kg of fish using the coupon. What was the price of 1 kg of prawns before discount?

Ans: _____ [3]

3

8 In the square ABCD below, AF = FE = ED and BG = GC. If AB = 18 cm and DH = 4 cm, find the total area of the shaded parts.

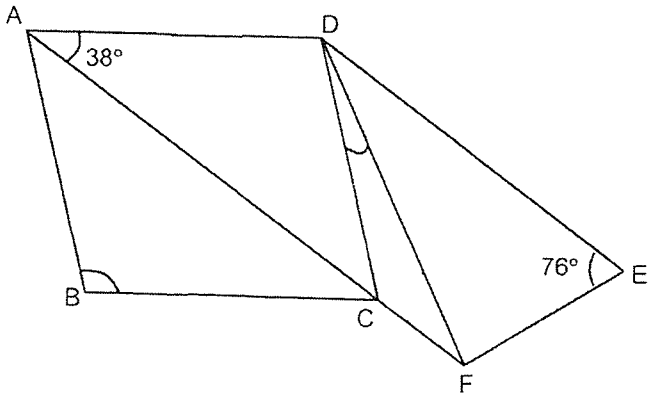


Ans: _____ [3]

3

9 In the figure below, ABCD is a rhombus, ADEF is a trapezium, DE = DF, $\angle CAD = 38°$ and $\angle DEF = 76°$.

(a) Besides ADEF, name another trapezium.
(b) Find $\angle ABC$.
(c) Find $\angle CDF$.



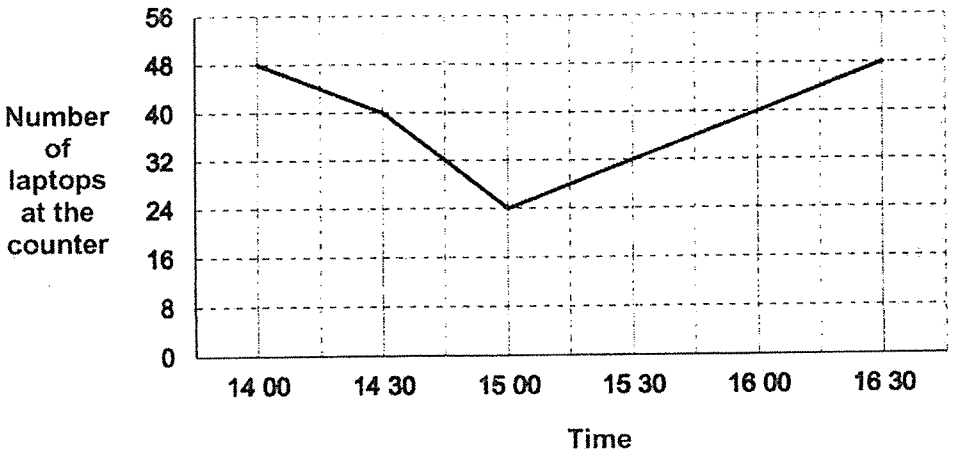
Ans: (a) Trapezium _____ [1]

(b)_____ [1]

(c)_____ [3]

5

10 A library had 48 laptops ready for loan at 14 00 at its counter. Laptops were issued out on loan only for the first hour. Then the borrowers could return the laptops from 15 00 to 16 30. The line graph shows the number of laptops at the counter from 14 00 to 16 30.



(a) What was the ratio of the number of laptops at the counter to the number of laptops loaned out at 16 00? Express your answer in its simplest form.

(b) What was the percentage decrease in the number of the laptops at the counter from 14 30 to 15 00?

(c) On average, how many laptops were returned to the counter per hour from 15 00 to 16 30?

Ans: (a)_____ [2]

(b)_____ [2]

(c)_____ [1]

5

11 Ali and Jim had some red and blue marbles. Jim had twice as many marbles as Ali. Ali had red and blue marbles in the ratio of 1 : 5. Jim had red and blue marbles in the ratio of 5 : 3. What was the ratio of their total number of red marbles to their total number of blue marbles?

Ans: _____ [3]

3

12 In a basket, $\frac{3}{8}$ of the fruits are oranges, $\frac{1}{4}$ of the remainder are pears and the rest are apples. There are twice as many green apples as red apples.

What fraction of the fruits in the basket are green apples?

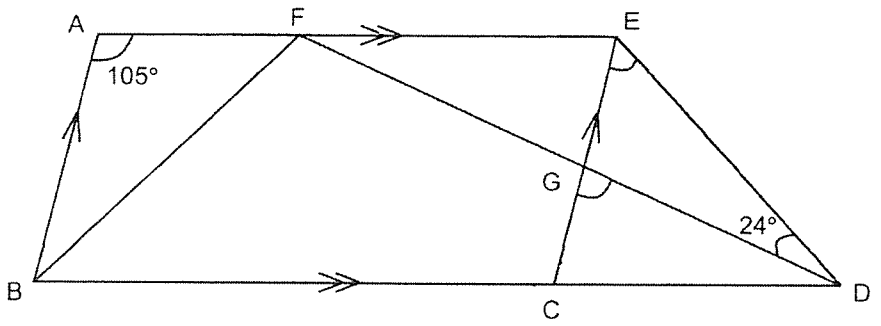
Ans: _____ [3]

3

13 The figure below is formed using straight lines with the following conditions: AE // BD, BA // CE, AE = BC, ED = EF, ∠EDG = 24° and ∠BAF = 105°.

(a) Find ∠CGD.

(b) Find ∠GED.



Ans: (a)_____ [1]

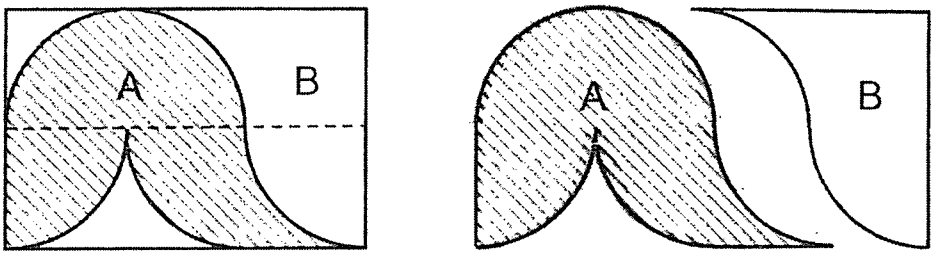
(b)_____ [1]

(c) Based on the figure above, fill in the blanks below with **parallelogram, rhombus** or **trapezium** so that the statement about ABCE and BFED is correct.

ABCE is a _____ and BFED is a _____. [1]

3

14 The rectangle below contains 5 identical quarter circles. The radius of each quarter circle is 10 cm. Shape A and Shape B were cut out as shown.



(a) Using the calculator value of π, find the area of Shape A. Round off the answer to 2 decimal places.

(b) Using $\pi = 3.14$, find the difference in the perimeter of Shape A and Shape B.

Ans: (a) _____ [2]

(b) _____ [2]

4

15 Siti spent 20% of her money on 1 bag and 2 T-shirts. The bag cost 3 times as much as each T-shirt. She spent 60% of the remaining money on a pair of shoes.

(a) What was the ratio of the price of the bag to the price of 1 T-shirt to the price of the pair of shoes?

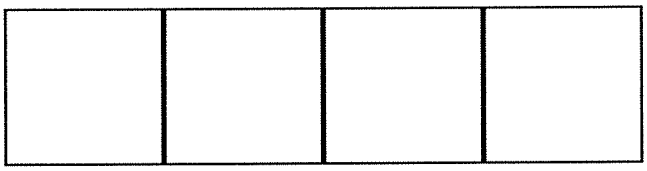
(b) Lynn bought the same 4 items as Siti a few weeks later. The price of the shoes decreased by 25% and the price of the rest of items were not changed. Lynn paid $36 less than Siti. How much did Lynn pay for all the 4 items?

Ans: (a) _____ [2]

(b) _____ [2]

4

16 William joined 4 identical square frames as shown below. All the 13 sides of the square frames were tied with balloons.



He tied the same number of big balloons on each side of the square frame. Between every 2 big balloons, he tied 5 small balloons.

(a) If William had 30 big balloons, what was the greatest number of big balloons he could tie on each side of the square frame?

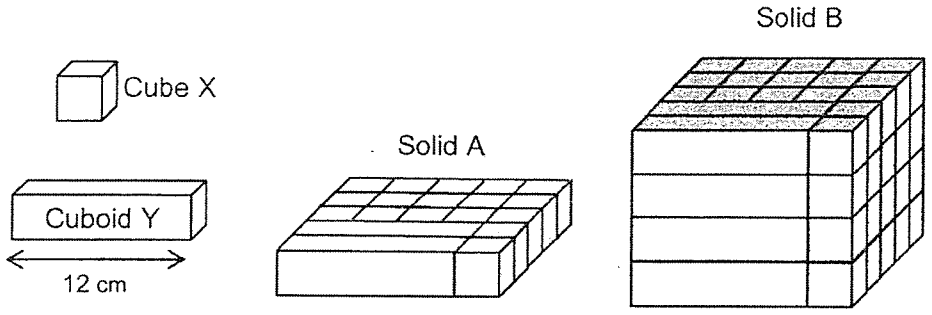
(b) How many big and small balloons would he need altogether if he tied 10 big balloons on each side of the square frame?

Ans: (a)_____ [1]

(b)_____ [4]

5

17 Tom built solid A by gluing together some identical cuboids Y and some identical cubes X as shown.



Tom built solid B by gluing 4 solids A together and then painted all the 6 faces of solid B.

(a) Find the volume of solid A.
(b) How many cubes X have none of the faces painted in solid B?
(c) How many cubes X have only 2 of the faces painted in solid B?

Ans: (a)_____ [2]

(b)_____ [1]

(c)_____ [1]

END OF PAPER

4

SCHOOL : RED SWASTIKA PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	2	2	4	1	2	3	3	4

Q 11	Q12	Q13	Q14	Q15
4	2	3	3	2

PAPER 1 BOOKLET B

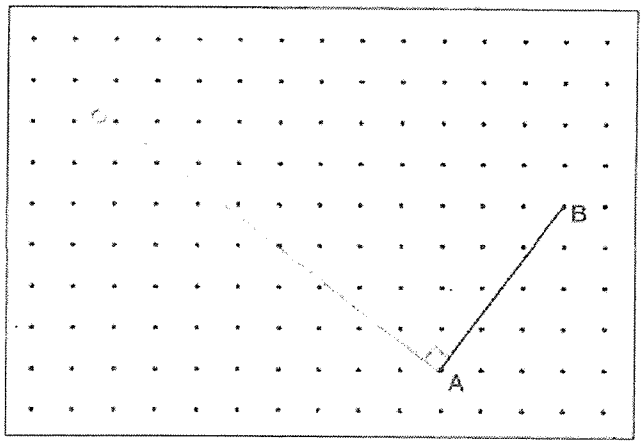
Q16) 28

Q17) 142

Q18) $\frac{2}{5}$

Q19) 6

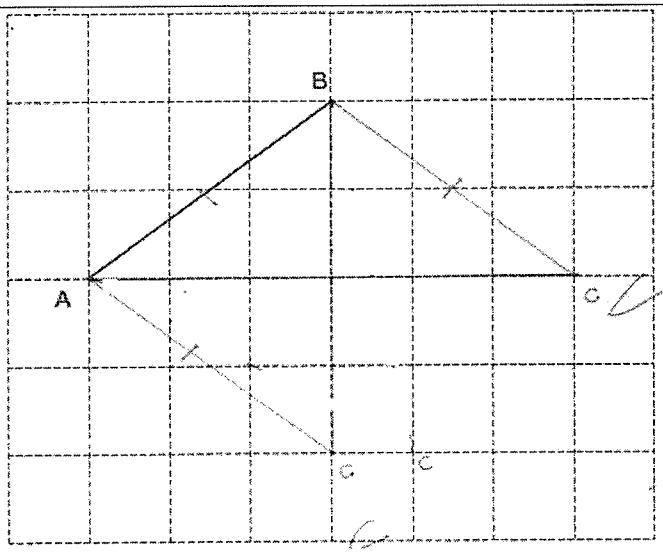
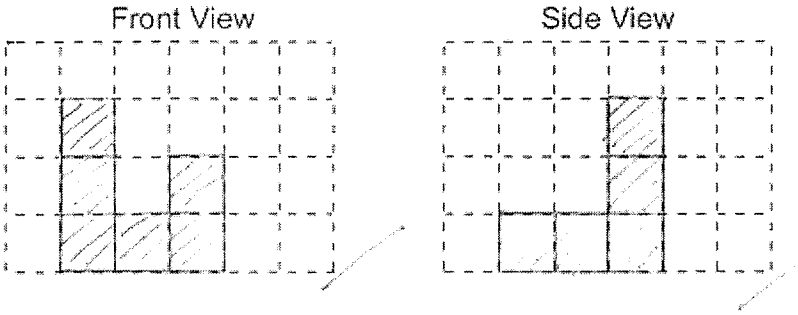
Q20)



Q21) a) 5.75
b) 3.3

Q22) a) 8
b) 28

Q23) $\frac{19}{8}$, $\frac{38}{16}$

Q24)	
Q25)	13.6
Q26)	
Q27)	5 : 4
Q28)	600
Q29)	**a) True** **b) False**
Q30)	7

PAPER 2

Q1)	\$8 x 88 = \$704
Q2)	9/20
Q3)	$\pi \, x \, 8 \, x \, 8 - \pi \, x \, 5 \, x \, 5 = 64\pi - 25\pi = 39\pi$ $\pi r^3 = \pi \, x \, 3 \, x \, 3 = 9\pi$ $39\pi + 9\pi = 48\pi$
Q4)	(28y + 9)
Q5)	BCE -> 108 – 60 = 48 60 + 66 = 126
Q6)	a) 24 , 25 b) 12 c) 28

Q7)	$13 x 4 = $52 52/10 x 6 = $31.20 $48 - $31.20 = $16.80 $16.80/7 x 10 = $24
Q8)	204cm²
Q9)	a) DEFC b) 104° c) 10°
Q10)	a) 5 : 1 b) 40% c) 16
Q11)	12u x 2 = 24 u 15u + 2u = 17u 9u + 10u = 19u 17 : 19
Q12)	¼ x 5/8 = 5/32 1 – 3/8 – 5/32 = 15/32 3u : 15/32 1u : 5/32 2u : 5/16
Q13)	a) 180 – 105 = 75 180 – 75 – 24 = 81 b) 180 – 24 – 24 = 132 132 – 75 = 57 c) Parallelogram , trapezium
Q14)	a) 335.62cm² b) 27.1cm
Q15)	a) 3 : 1 : 2 b) $168
Q16)	a) 3 b) 699
Q17)	a) 12/4 = 3cm 12 + 3 = 15cm 3 x 5 = 15cm 15 x 15 x 3 = 675cm² b) 12 c) 22

ROSYTH SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6
PAPER 1

Name: _____ Register No. _____

Class: Pr 6 -_____ Group: _____

Date: 24 August 2021 Parent's Signature: _____

Total Time for Booklets A and B : 1 hour

BOOKLET A

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. Shade your answers in the Optical Answer Sheet (OAS) provided.
4. You are **not** allowed to use a calculator.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet A)	20	19

* This booklet consists of 9 pages (including this cover page).

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For **each question, four options are given. One of them is the correct answer.**
Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

All diagrams in this paper are not drawn to scale unless stated otherwise.

(20 marks)

---

1. Which one of the following numbers is the largest?

   (1) 2.032
   (2) 2.302
   (3) 2.230
   (4) 2.023

2. Mark bought $2k$ boxes of erasers. Each box contained 10 erasers. What was the total number of erasers he bought?

   (1) $2k + 10$
   (2) $2k + 20$
   (3) $12k$
   (4) $20k$

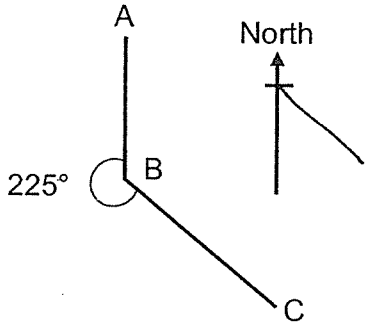
3. The opening times of Sharkie Restaurant is shown below.
   For how long is the restaurant open each day?

   (1) 7 h 15 min
   (2) 7 h 30 min
   (3) 7 h 45 min
   (4) 10 h 30 min

Opens Daily
Lunch : 11.30 a.m. to 2.45 p.m.
Closed for Break 2.45 p.m. to 5.45 p.m.
Dinner: 5.45 p.m. to 10.00 p.m.

(Go on to the next page)

4. In the diagram, A, B and C are 3 points on the ground. Point A is north of Point B and the ∠ABC is 225°. In what direction is point C from point B?



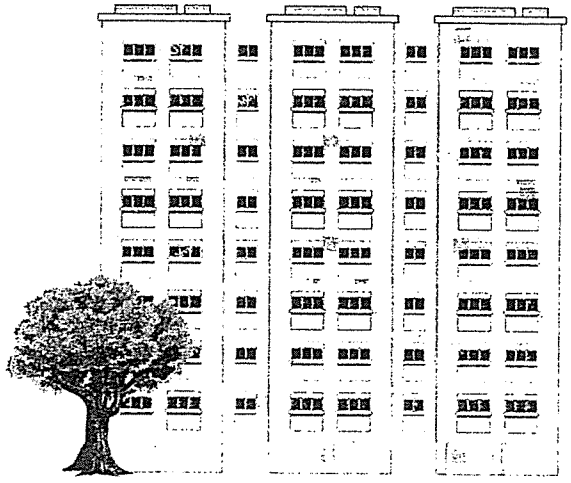
(1) South-West

(2) North-West

(3) South-East

(4) North-East

5. The top of the tree reaches the 4th storey of a block of flat. Which of the following could be the height of the tree?



(1) 1.02 km

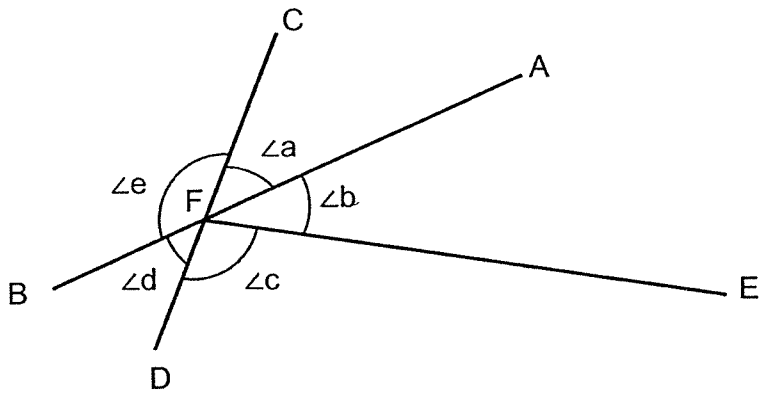
(2) 1.2 m

(3) 12 m

(4) 102 cm

(Go on to the next page)

6. AB, CD and EF are all straight lines.



Which of the following statements is true?

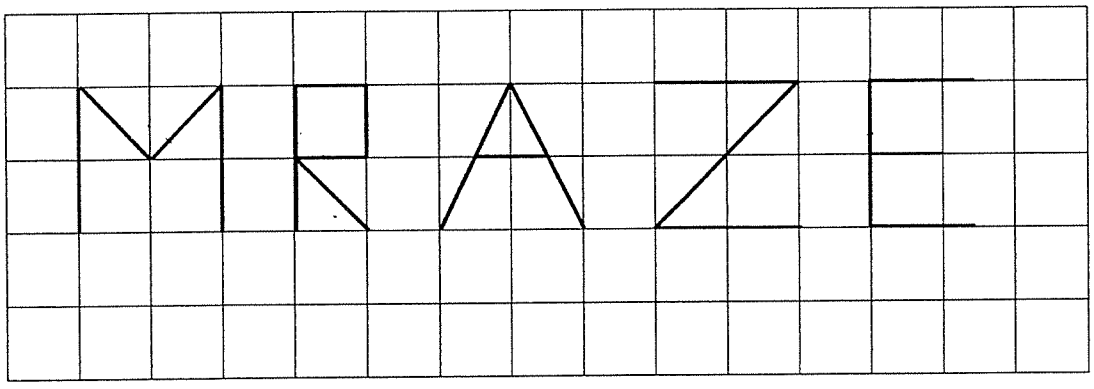
(1) $\angle e = \angle b$

(2) $\angle b = \angle d$

(3) $\angle a + \angle b = \angle d$

(4) $\angle b + \angle c = \angle e$

7. The letters M, R, A, Z and E are written in the square grid shown below. Which of the options given list all the letters that have perpendicular lines?



(1) E and R

(2) A, E and R

(3) E, M and R

(4) E, M, R and Z

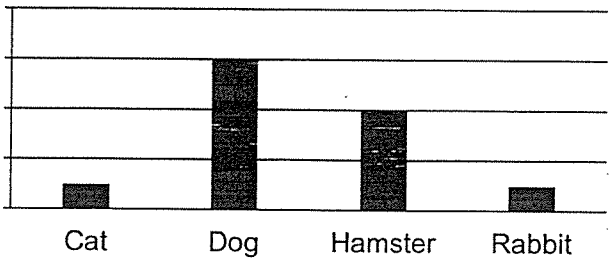
(Go on to the next page)

8. A group of children was asked to choose their favourite animal. Each child can choose more than one animal. The table represents the children's choices. The children's choices were also represented by a bar graph.

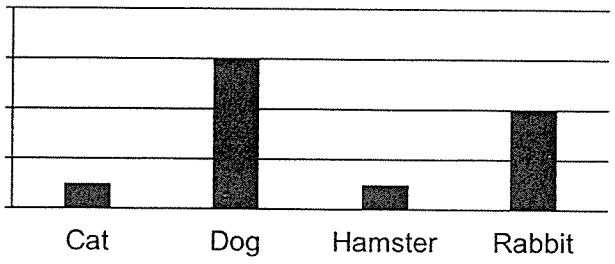
Animal	Cat	Dog	Hamster	Rabbit
Percentage	10%	60%	40%	10%

Which of the following bar graphs best represents the information shown in the table above?

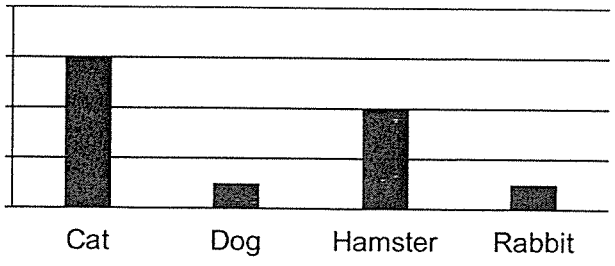
(1)



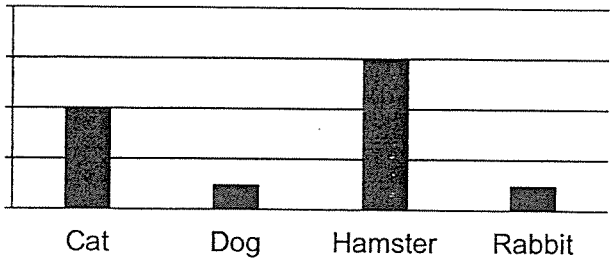
(2)



(3)

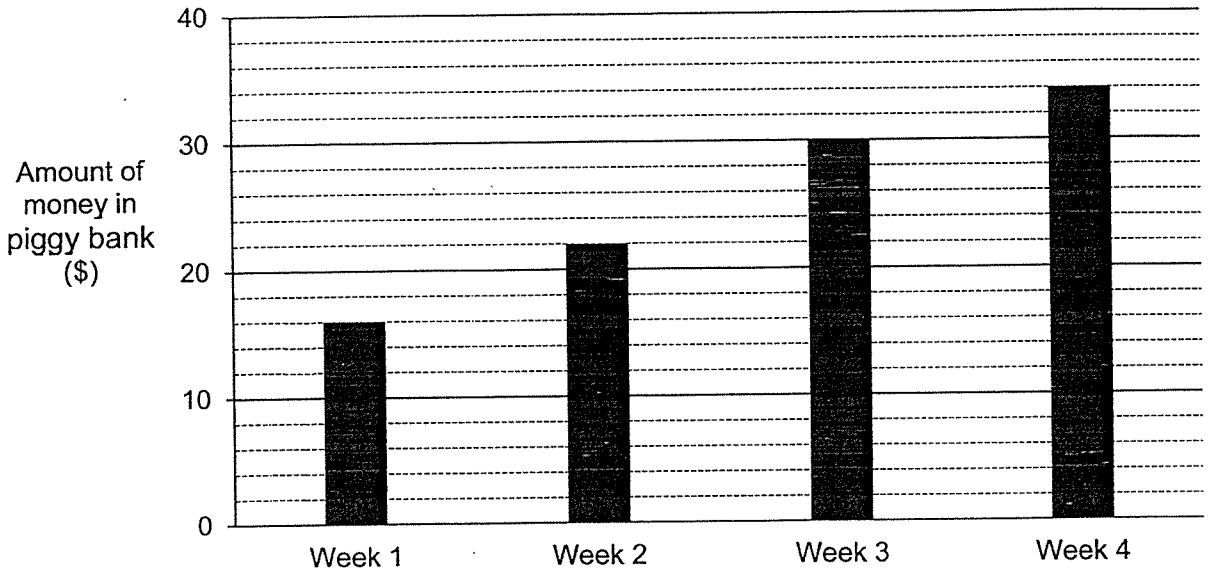


(4)



(Go on to the next page)

9. Alynna had an empty piggy bank. Each week, Alynna would put some money into her piggy bank. The graph below shows the amount of money she had in her piggy bank at the end of each week.



In which week did Alynna put in the most amount of money into her piggy bank?

(1) Week 1

(2) Week 2

(3) Week 3

(4) Week 4

10. Mary's father bought her a laptop at $2500. She had to repay him an equal amount of money each day for the laptop. She took 1000 days to pay him back. How much did she repay her father each day?

(1) $0.25

(2) $2.50

(3) $25

(4) $250

(Go on to the next page)

11. Jenny sews 2 masks in half an hour. Siti sews 3 masks in an hour. How long will both of them take to complete sewing 105 masks together?

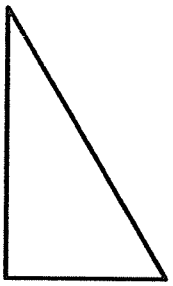
(1) 15 h

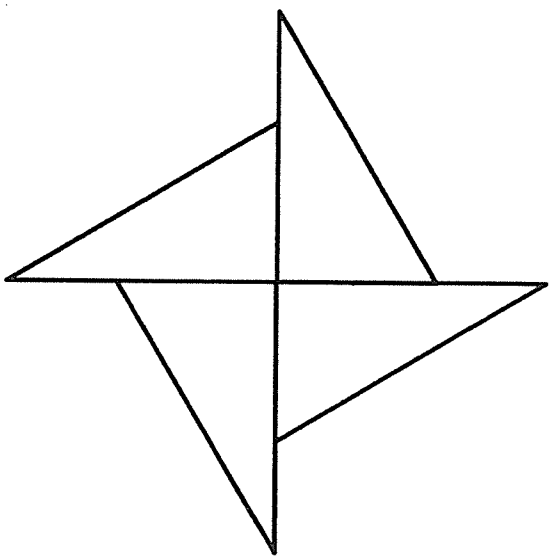
(2) 21 h

(3) 26 h

(4) 30 h

12. Aishah cut out 4 identical right-angled triangles. Each right-angled triangle has a perimeter of 36 cm. She formed the shape shown below. What is the perimeter of the figure formed by the 4 right-angled triangles?





(1) 72 cm

(2) 108 cm

(3) 144 cm

(4) 180 cm

(Go on to the next page)

13. In a party, $\frac{1}{5}$ of the people are female and the rest are male. $\frac{1}{2}$ of the female are vegetarians. There are three times as many male vegetarians as female vegetarians.

What fraction of the people at the party are vegetarians?

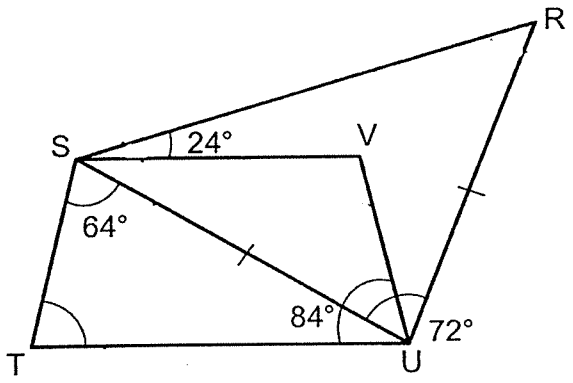
(1) $\frac{3}{10}$

(2) $\frac{2}{5}$

(3) $\frac{3}{5}$

(4) $\frac{7}{10}$

14. In the figure, STUV is a trapezium and triangle RSU is an isosceles triangle. $\angle RSV = 24°$, $\angle TSU = 64°$, $\angle TUV = 84°$ and $\angle SUR = 72°$. Find $\angle STU$.



(1) 62°

(2) 84°

(3) 86°

(4) 96°

(Go on to the next page)

15. Sharon has 3 more 20-cent coins than 50-cent coins. The total value of all her coins is $10.40. How many 20-cent coins does she have?

(1) 11

(2) 12

(3) 14

(4) 17

Go on to Booklet B

ROSYTH SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6
PAPER 1

Name: _____ Register No. _____

Class: Pr 6 -_____ Group: _____

Date: 24 August 2021 Parent's Signature: _____

Total Time for Booklets A and B : 1 hour

BOOKLET B

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. You are **not** allowed to use a calculator.
4. Write your answers in the booklet.
5. Answer all questions.

Section	Maximum Mark	Marks Obtained
Paper 1 (Booklet B)	25	

* This booklet consists of 9 pages (including this cover page).

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

(5 marks)

16. Find the value of $20 - 8 \div 4 \times (2 + 6) + 1$.

Ans: _____

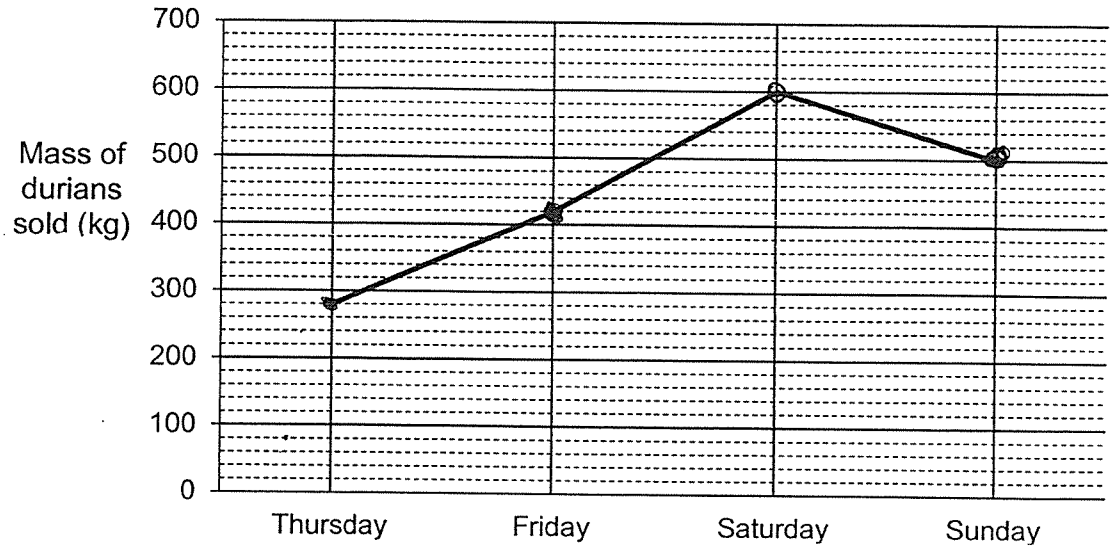
17. A watch cost \$120 before discount. How much would Mr Lim pay for the watch after discount?

Ans: \$_____

(Go on to the next page)

18. The graph below shows the mass of durians sold at a shop over four days.

Do not write in this space



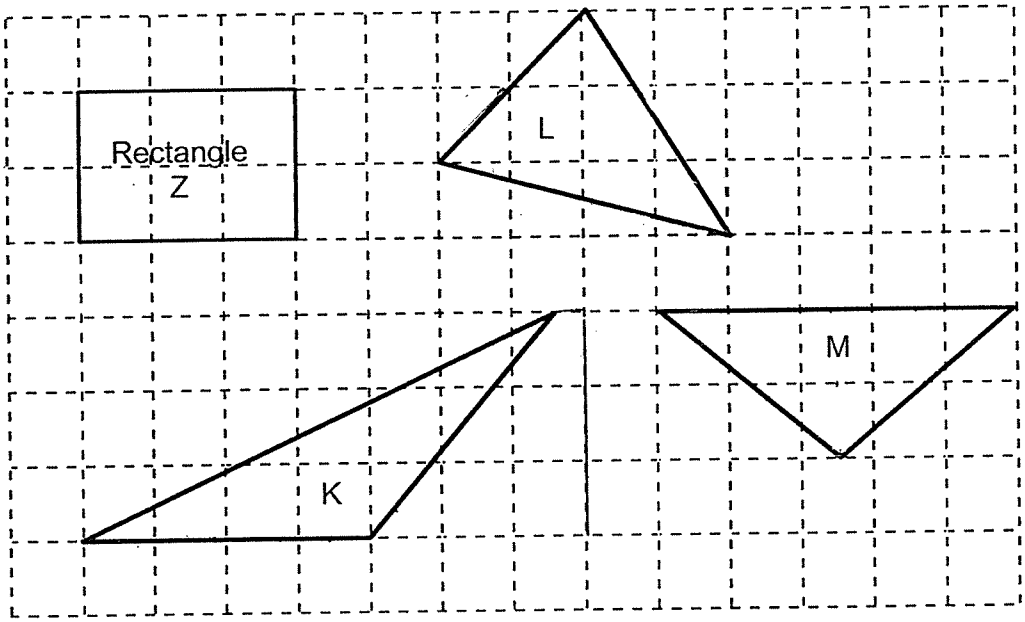
The cost of 1 kg of durians was $20. How much money was collected over the four days?

Ans: $_____

(Go on to the next page)

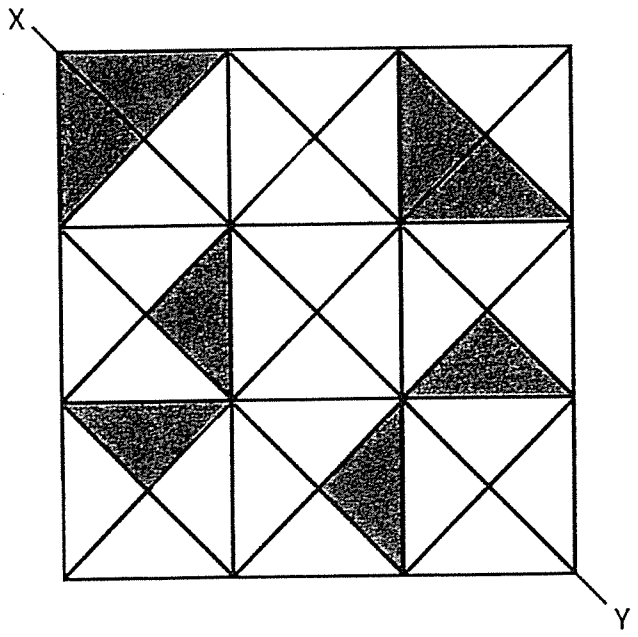
19. 3 triangles are drawn in the grid shown below. Which triangle has the same area as Rectangle Z?

Do not write in this space



Ans: _____

20. The figure is made up of identical triangles. Shade 2 more triangles so that line XY is the line of symmetry for the figure.



(Go on to the next page)

Questions **21** to **30** carry 2 marks each. Show your workings clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

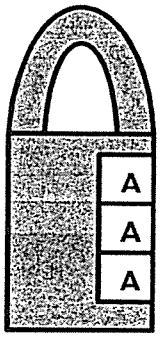
(20 marks)

21. The fraction $\frac{1}{7}$ expressed as a decimal is 0.1428571428571428571....
What is the 32nd digit after the decimal point?

Ans: _____

22. A combination lock has a 3-digit code which has the same digits and is represented by AAA.

AAA has 4 factors. What is the value of A?



Combination Lock

Ans: _____

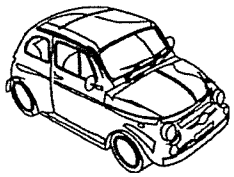
23. Sarah has 1.08 litres of orange juice. She wants to pour 90 ml of orange juice into each cup. How many cups can she fill?

Ans: _____

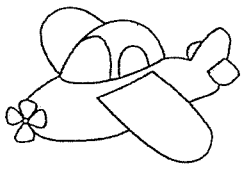
(Go on to the next page)

Do not write in this space

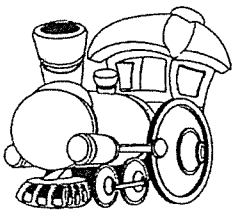
24. Matthew had \$83. He spent the entire amount of money on the 3 items shown below. Find the value of y.



\$y



\$(y – 1)



\$(2y)

Ans: _____

25. There were 162 pages in a story book. Eve read $\frac{1}{2}$ of the story book on Monday. She read $\frac{1}{3}$ of the remainder on Tuesday. The rest of the pages were read equally on Wednesday and Thursday. How many pages did she read on Thursday?

Ans: _____

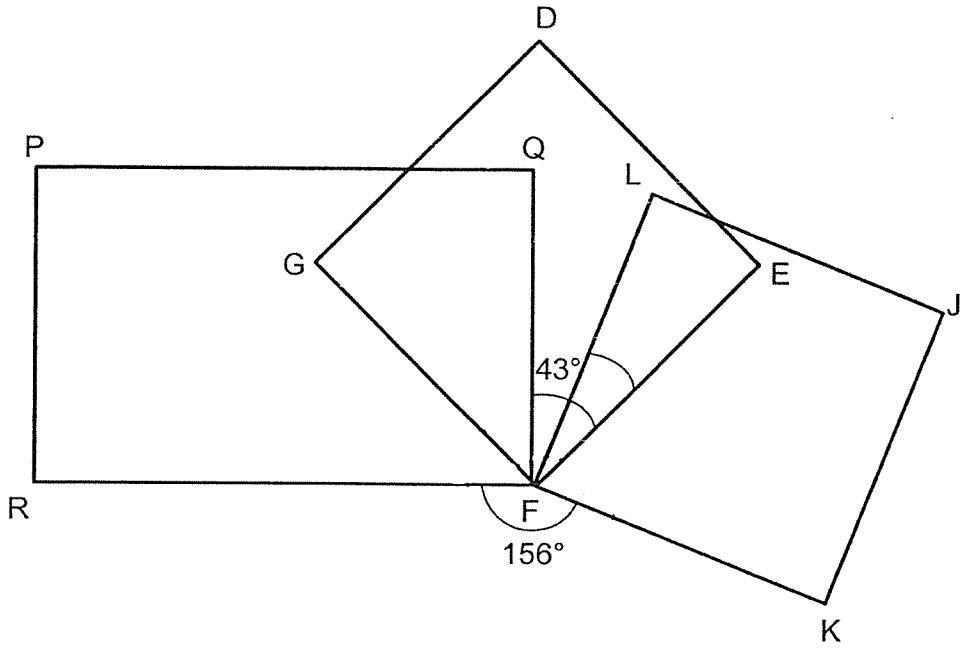
26. The average of three different 3-digit numbers is 123. One of the numbers is 107. Find the smallest possible difference between the two other numbers.

Ans: _____

(Go on to the next page)

27. The figure is made up of 2 squares, DEFG, JKFL and a rectangle, PQFR. ∠QFE is 43° and ∠RFK is 156°.
Find ∠LFE.

Do not write in this space



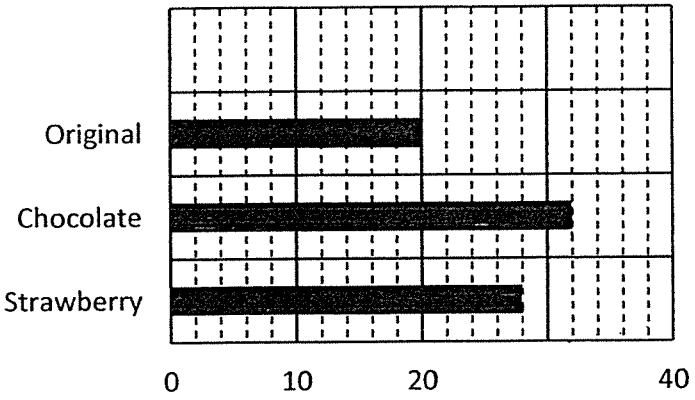
Ans: _____ °

(Go on to the next page)

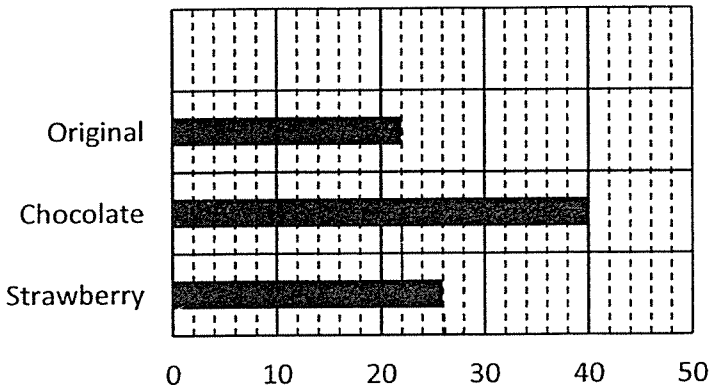
28. The 2 bar graphs showed the number of bottles of different flavoured milk sold on Monday and Tuesday.

Do not write in this space

Bottles of Milk Sold on Monday



Bottles of Milk Sold on Tuesday



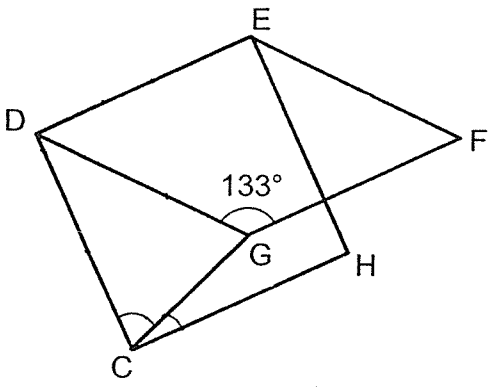
What was the percentage increase in the number of bottles of milk sold on Tuesday?

Ans: _____%

(Go on to the next page)

29. The figure is made up of a rhombus, DEFG, and a square, DEHC. $\angle DGF = 133°$. Find $\angle DCG$.

Do not write in this space



Ans: _____ °

30. The table below shows the amount of money donated by each student in a class. Part of the table is covered by an ink blot. $\frac{1}{2}$ of the class donated at least \$2.

Amount of Money	\$0	\$1	\$2	\$5	\$10
Number of students	6	12	7		

Each of the statements is either true, false or not possible to tell from the information given. For each statement, put a tick (√) to indicate your answer.

Statements	True	False	Not Possible to tell
The amount of money donated by the most number of students is \$1.			
More than $\frac{1}{2}$ of the amount of money is donated by the remaining students.			

End of paper
Have you checked your work?

ROSYTH SCHOOL
2021 PRELIMINARY EXAMINATION
MATHEMATICS
PRIMARY 6
PAPER 2

Name: _____ Register No. _____

Class: Pr 6 -_____ Group No: _____

Date: 24 August 2021 Parent's Signature: _____

Time: 1h 30min

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. **Show your workings clearly** as marks are awarded for correct working.
4. Write your answers in this booklet.
5. You are allowed to use a calculator.
6. Answer all questions.

Questions	Maximum Mark	Marks Obtained
Q 1 to 5	10	
Q 6 to 17	45	

Section	Maximum Mark	Marks Obtained
Paper 1	45	
Paper 2	55	
Total	100	

* This booklet consists of 16 pages (including this cover page)

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

Do not write in this space

All diagrams in this paper are not drawn to scale unless stated otherwise.

1. At 10 a.m., Ali and John set their alarm clocks to ring. Ali set his alarm clock to ring every 15 minutes. John set his alarm clock to ring every 20 minutes. At what time will it take for both their alarm clocks to ring together for the first time?

Ans: _____ a.m.

2. The table below shows the prices of a bottle of hand sanitiser and a box of face masks at a shop.

Item	**Price**
A bottle of hand sanitiser	$\$w$
A box of face masks	$\$(w + 8)$

Mdm Toh paid $265 for 15 bottles of hand sanitisers and some boxes of face masks. If $w = 3$, how many boxes of face masks did Mdm Toh buy?

Ans: _____

(Go on to the next page)

3. Caitlin wanted to cut out isosceles triangles with a base of 2 cm and a height of 2 cm as shown below from a rectangular piece of paper.
The paper measures 16 cm by 25 cm.
What is the most number of such triangles that she can cut out?

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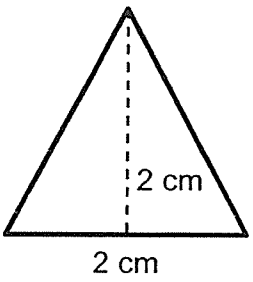
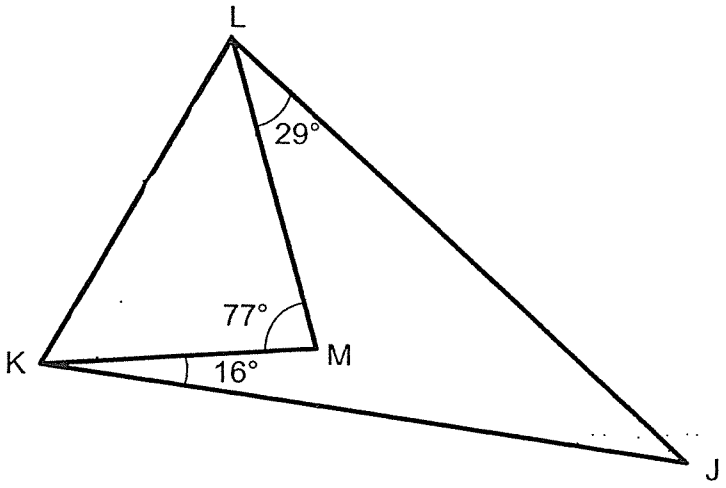


Ans: _____

4. Two triangles, KLM and JKL, are shown in the figure below.
Find $\angle LJK$.



Ans: _____ °

(Go on to the next page)

5. Sam only had the following notes and coins in his saving box. The notes are \$2, \$5 and \$10. The coins are 10¢, 20¢ and 50¢. On Saturday, he took out the least amount with a note and a coin. On Sunday, he took out the most amount with a note and a coin. What was the total amount of money taken out from the saving box on Saturday and Sunday?

Do not write in this space

Ans: _____

(Go on to the next page)

For Questions **6** to **17,** show your working clearly in the space provided for each question and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. For questions which require units, give your answers in the units stated.

All diagrams in this paper are not drawn to scale unless stated otherwise.

(45 marks)

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6. $\frac{3}{4}$ of the cost of a laptop is equal to $\frac{1}{2}$ of the cost of a television. The total cost of the 2 items is \$2400 after a 20% discount. How much is the cost of the laptop before discount?

Ans: _____ [3]

7. Machine A is able to print 50 stars in a minute. For every 1000 stars that Machine A prints, Machine B is able to print 500 more stars than Machine A. How many more stars will Machine B print in 2 hours than Machine A?

Ans: _____ [3]

(Go on to the next page)

8. There were three types of flowers in a garden. There were 352 stalks of orchids. The ratio of the number of stalks of tulips to the number of stalks of lilies is 5 : 3. The total number of stalks of tulips and lilies was 56% of all the flowers. How many more stalks of orchids were there than tulips?

Do not write in this space

Ans: _____ [3]

(Go on to the next page)

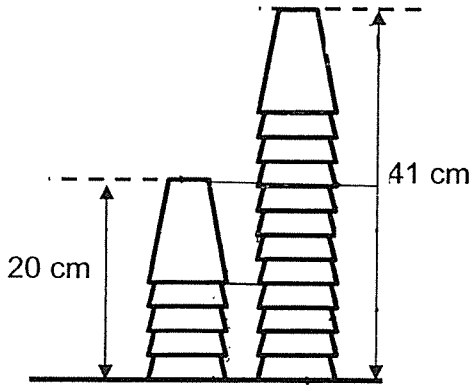
9. The figure shows 2 stacks of identical cups. There are 5 cups in the shorter stack and 12 cups in the taller stack.

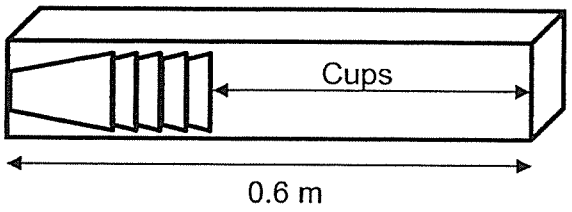
Do not write in this space

The height of the shorter stack is 20 cm and the height of the taller stack is 41 cm.

Shi Yao wants to pack the cups as shown into a box 0.6 m long.

What is the most number of cups she can pack into the box?



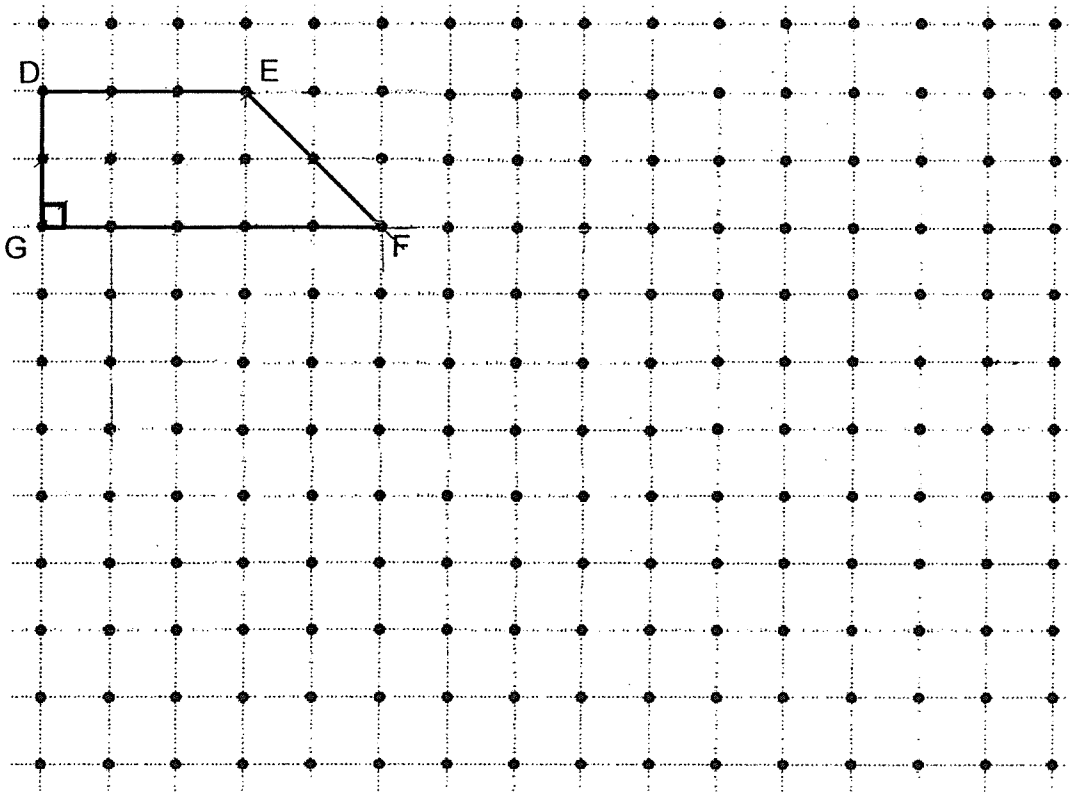


Ans: _____ [3]

(Go on to the next page)

10. A trapezium, DEFG is drawn in the grid shown below.

Do not write in this space



By joining the dots in the grid with straight lines,

(a) draw a parallelogram that has twice the perimeter of the trapezium DEFG. Using the line EF as one side, label it EFKL. [1m]

(b) draw a square from point F that has the same area as the trapezium DEFG. Label it FMNP. [2m]

Both parallelogram EFKL and the square should not overlap the trapezium DEFG and each other.

(Go on to the next page)

11. An equal number of children attended Camp A and Camp B. The ratio of the number of girls to the number of boys in Camp A was 5 : 9. The ratio of the number of girls to the number of boys in Camp B was 4 : 1. Altogether, there were 132 more girls than boys. How many children were there in both camps?

Do not write in this space

Ans: _____ [4]

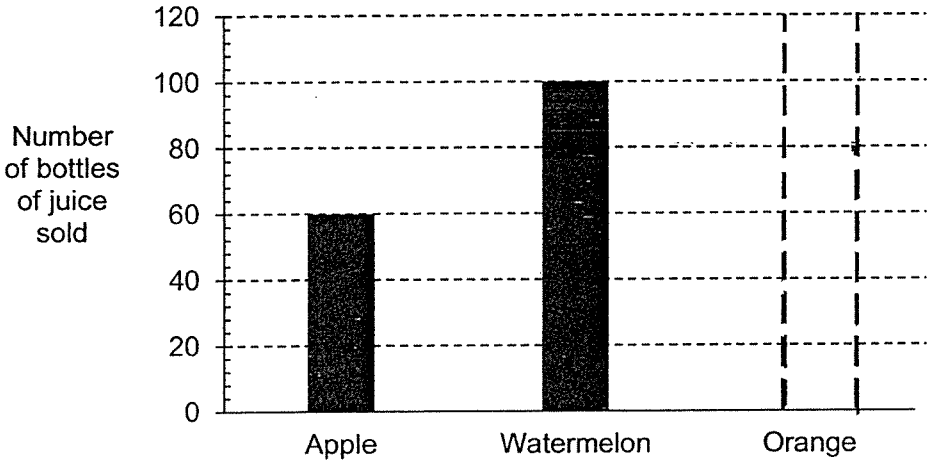
(Go on to the next page)

12. The table below shows the different types of juices sold at a stall.

Do not write in this space

Type of Juices	Volume of juice per bottle
Apple	250 mℓ
Watermelon	500 mℓ
Orange	600 mℓ

The bar graph shows the number of bottles of each type of juice sold at the stall on a Monday. The bar that shows the number of bottles of orange juice sold has not been drawn.



(a) The total volume of orange juice sold was 48 litres.
Draw the bar representing the number of bottles of orange juice sold in the bar graph above. You are not required to shade the bar. [2]

(b) On the next day, the number of bottles of apple juice sold decreased by 25%. The number of the bottles of watermelon juice and orange juice sold remained the same. What fraction of the bottles sold were apple juice?

Ans: (b) _____ [2]

(Go on to the next page)

13. Claire had a roll of wire that was used to make stars. She used 3.75 m of the wire to make 12 small stars and 15 big stars. There was some remaining wire left. She could not make a big star with the remaining wire as she would be short of 4 cm of wire. So she made a small star with the remaining wire instead and had 3 cm of wire left.

Do not write in this space

(a) What was the difference in the length of wire used to make a big star and a small star?

(b) What was the length of the roll of wire Claire had at first?

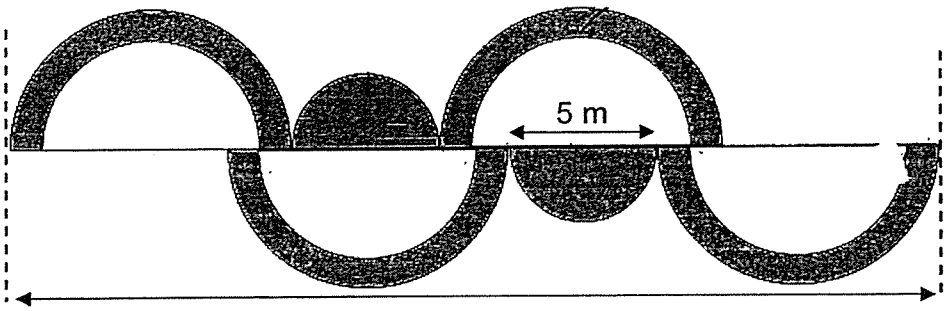
Ans: (a) _____ [1]

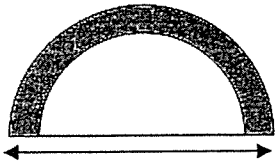
(b) _____ [3]

(Go on to the next page)

14. The figure shown below is made up of identical semi-circles of different sizes, 2 small, 4 medium and 4 large. The length of the figure is 30 m. Each of the small semi-circle has a diameter of 5 m.

Do not write in this space





(a) Find the diameter of 1 large semi-circle.

(b) Find the total area of all the shaded portions. (Take $\pi = 3.14$) Express your answer to 2 decimal places.

You may continue your working on the next page

(Go on to the next page)

14 Continue your working here for question 14.

Do not write in this space

Ans: (a) _____ [1]

(b) _____ [3]

(Go on to the next page)

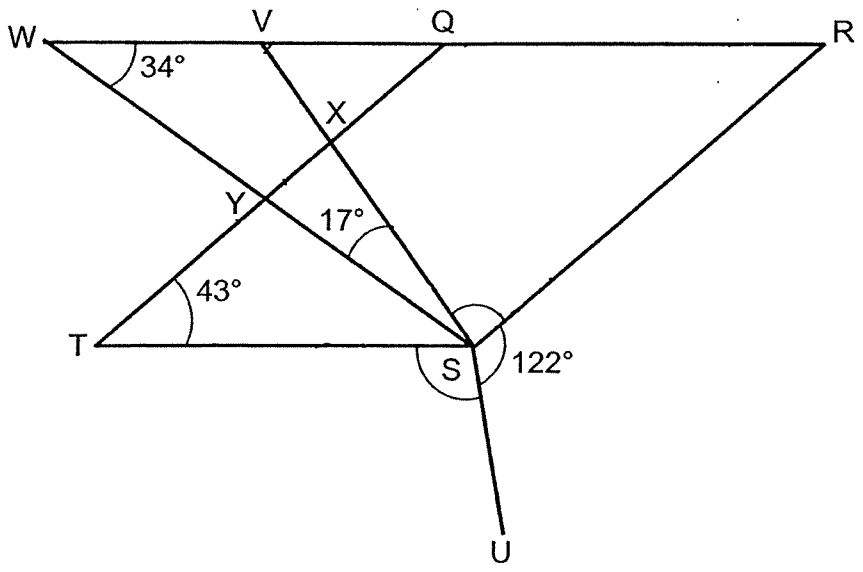
15. In the figure shown below, QRST is a parallelogram. WR, WS, SU and VS are all straight lines. ∠SWV = 34°, ∠WSV = 17°, ∠QTS = 43° and ∠RSU is 122°.

Do not write in this space

(a) Find ∠ TSU.

(b) Find ∠ RSX.

(c) Find ∠ VXY.



Ans: (a) _____ [1]

(b) _____ [2]

(c) _____ [1]

(Go on to the next page)

16. Serene had some oranges in her shop. She sold $\frac{1}{6}$ of them in the afternoon and 280 of the oranges in the evening. She was left with $\frac{3}{5}$ of the oranges. She packed these remaining oranges into boxes.

Some of the boxes contained 8 oranges while the rest of the boxes contained 12 oranges.

(a) How many oranges were packed into the boxes?

(b) She packed 20 more boxes with 8 oranges than boxes with 12 oranges. How many boxes were used to pack 8 oranges?

Do not write in this space

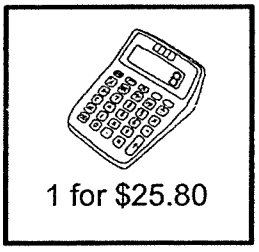
Ans: (a) _____ [2]

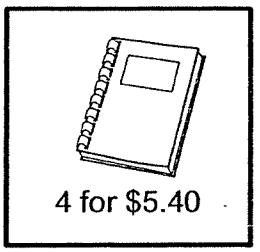
(b) _____ [3]

(Go on to the next page)

17. Below shows the prices of some items at a bookshop.

Do not write in this space





(a) Kenny bought 2 calculators and 16 notebooks for $60.30. There was a discount given on the calculators only. What was the percentage discount of the calculators?

(b) Mr Koh bought an equal number of calculators and notebooks without any discount. He spent $1467 more on the calculators than the notebooks. How many notebooks did he buy?

Ans: (a) _____ [2]

(b) _____ [3]

End of Paper

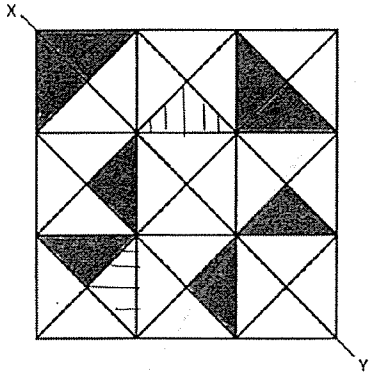
SCHOOL : ROSYTH SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 PRELIM

PAPER 1 BOOKLET A

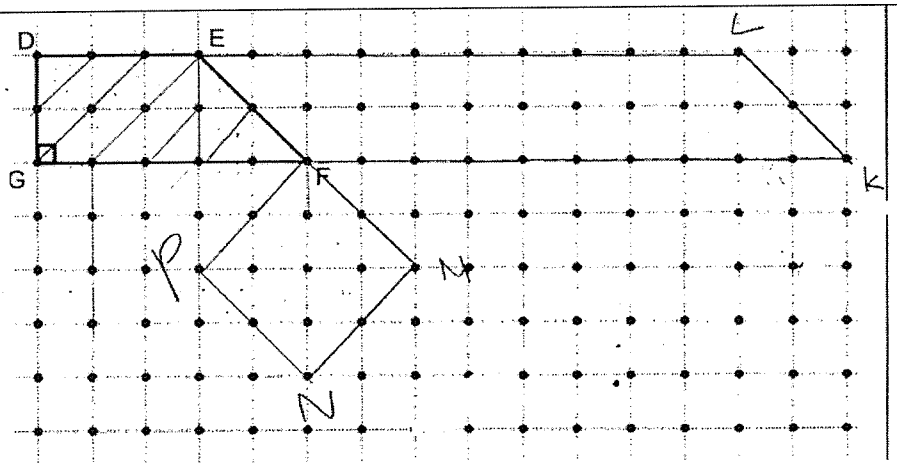
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
2	4	2	3	3	4	3	1	3	2

Q11	Q12	Q13	Q14	Q15
1	1	2	3	4

PAPER 1 BOOKLET B

Q16)	5
Q17)	90
Q18)	\$36000
Q19)	K
Q20)	
Q21)	4
Q22)	1
Q23)	12
Q24)	21
Q25)	27
Q26)	2
Q27)	19°
Q28)	10%
Q29)	68.5°
Q30)	$True, True$

PAPER 2

Q1)	$common\ mulitple\ 60$ $60mins = 11a.m.$
Q2)	20
Q3)	$base = 25 \div 2 = 12R1$ $cut = 8 \times 11 + 8 \times 12 = 184$
Q4)	$angle\ LJK = 180° - 103° - 29° - 16° = 32°$
Q5)	$sat = 2 + 0.10 = 2.10$ $sun = 10 + 0.50 = 10.50$ $total = 10.50 + 2.10 = \$12.60$
Q6)	$x\ discount = \$2400 \div 80 \times 100 = \$3000$ $L = \$3000 \div 10 \times 4 = \$1200$
Q7)	$mb = 1000 + 500 = 1500$ $set = 1000 \div 50 = 20$ $mb\ 1min = 1500 \div 20 = 75$ $mb\ 120min = 75 \times 120 = 9000$ $NA\ 120min = 50 \times 120 = 6000$ $diff = 9000 - 6000 = 3000$
Q8)	$44\%\ of\ total = 352$ $56\%\ of\ total = 352 \div 44 \times 56 = 448$ $tulip = 448 \div 8 \times 5 = 280$ $diff = 352 - 280 = 72$
Q9)	$20 - 4 \times 3 = 8$ $set = 60 \div 20 = 3$ $parts = \frac{60 - 8}{3} = 17R1$ $cups - 17 + 1 = 18$
Q10)	

Q11)

$$a$$
$$G:B = 5:9 = 25:45$$
$$b$$
$$G:B = 4:1 = 56:14$$
$$132 - (25u - 56u) - (45u + 14u) = 224$$
$$1u - 132 \div 22 = 6$$
$$70 \times 6 = 420$$
$$total - 70 \times 6 \times 2 = 840$$

Q12)

$$a) - \frac{75}{100} \times 60 = 45$$
$$total - 45 + 100 + 80 = 225$$
$$b) - \frac{45}{225} = \frac{1}{5}$$

Q13)

$$12p - 12u = 7cm \times 12 = 84cm$$
$$3p\ diff = 7cm \times 3 = 21cm$$
$$27u = 375cm - 21cm - 84cm = 270cm$$
$$1u = 270cm \div 27 = 10cm$$
$$total = 375cm + 10cm + 3cm = 388cm$$
$$(a)\ 7cm$$
$$(b)388cm$$

Q14)

$$1\ medium\ D = 5 + 1 + 1 = 7$$
$$1\ medium = 3.14 \times 3.5 \times 3.5 \div 2 = 19.2325$$
$$1\ large = 3.14 \times 4.5 \times 4.5 \div 2 = 31.7925$$
$$1\ small = 3.14 \times 2.5 \times 2.5 = 9.8125$$
$$31.7925 - 19.2325 = 12.56$$
$$(a)1 \times 4 + 5 = 9m$$
$$(b)12.56 \times 4 + 9.1825 \times 2 \approx 69.87m$$

Q15)

$$(a)\ 360° - 122° - 137° = 101°$$
$$(b)180° - 43° - 34° = 103°$$
$$103° - 17° = 86°$$
$$(c)360° - 129° - 103° - 34° = 94°$$

Q16)

$$evening - 1 - \frac{1}{6} - \frac{3}{6} = \frac{7}{30}$$
$$pack - 280 \div 7 \times 18 = 720$$
$$more - 20 \times 8 = 160$$
$$1u - \frac{720 - 160}{20} = 28$$
$$28 + 20 = 48$$
$$(a)720$$
$$(b)48$$

Q17)	$16\ notebook - 4 \times 5.40 = 21.60$ $2c - 60.30 - 21.60 = 38.70$ $2c - 25.80 \times 2 = 51.60$ $diff - 51.60 - 38.70 = 12.90$ $\frac{12.9}{51.6} \times 100\% = 25\%$ $1\ set\ diff - 103.20 - 5.40 = 97.80$ $set - 1467 \div 97.80 = 15$ $NB - 15 \times 4 = 60$ $(a) 25\%$ $(b) 60$

AT / GAL / WSW / EL / LYL	Index No.						—	

SINGAPORE CHINESE GIRLS' SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS
PAPER 1

BOOKLET A

Name : _____ **( )** **17 August 2021**

Class : Primary 6 SY / C / G / SE / P

		Marks attained	Max Mark
Paper 1	Booklet A		20
	Booklet B		25
Paper 2			55
Total Marks			100

Parent's Signature

---

15 Questions
20 Marks

Total Time for Booklets A and B: 1 h

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.
You are **not allowed** to use a calculator

Booklet A

Questions 1 to 10 carry 1 mark each. Questions 11 to 15 carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. **(20 marks)**

---

1. The mass of a basketball is approximately_____.

   (1) 25 g
   (2) 2.5 kg
   (3) 6900g
   (4) 0.69 kg

2. Find the value of 2.4 ÷ 60.

   (1) 0.004
   (2) 0.04
   (3) 0.4
   (4) 4

3. Which of the following, when rounded off to the nearest tenth, is 60.3?

   (1) 59.32
   (2) 59.93
   (3) 60.26
   (4) 60.36

4. How many factors of 36 are multiples of 4?

   (1) 8
   (2) 2
   (3) 3
   (4) 4

5. Arrange the following distances in descending order:

4.30 km , $4\frac{1}{3}$ km , 4 km 103 m

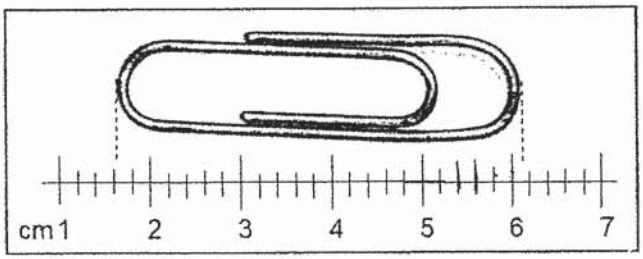
(1) $4\frac{1}{3}$km , 4.30km , 4km 103 m

(2) 4.30km , $4\frac{1}{3}$km , 4km 103 m

(3) 4km 103 m , $4\frac{1}{3}$km , 4.30km

(4) 4km 103 m , 4.30km , $4\frac{1}{3}$km

6. What is the approximate length of the paper clip below?



(1) 4.25 cm

(2) 4.5 cm

(3) 4.8 cm

(4) 6.1 cm

7. The ratio of the number of girls to boys in a class is 4 : 5. Half of the girls in the class had long hair. What is the ratio of the number of girls with long hair to the the number of students in class?

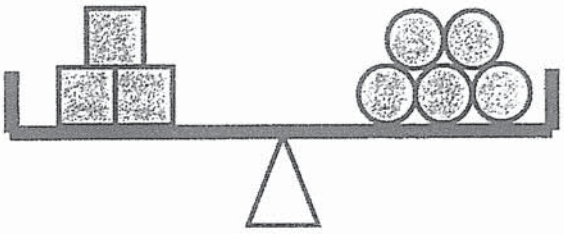
(1) 1 : 4

(2) 1 : 9

(3) 2 : 5

(4) 2 : 9

8. In the figure below, 3 cubes weighed the same as 5 balls. What is the average mass of each object if the mass of a cube is 80g?

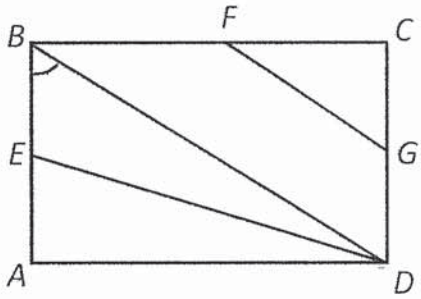


(1) 10 g
(2) 30 g
(3) 48 g
(4) 60 g

9. What is the value of $5 + \frac{10y}{4} - y + 2$ when $y = 4$?

(1) 9
(2) 11
(3) 12
(4) 13

10. The figure ABCD is a rectangle. Which angle is the same as ∠ABD?

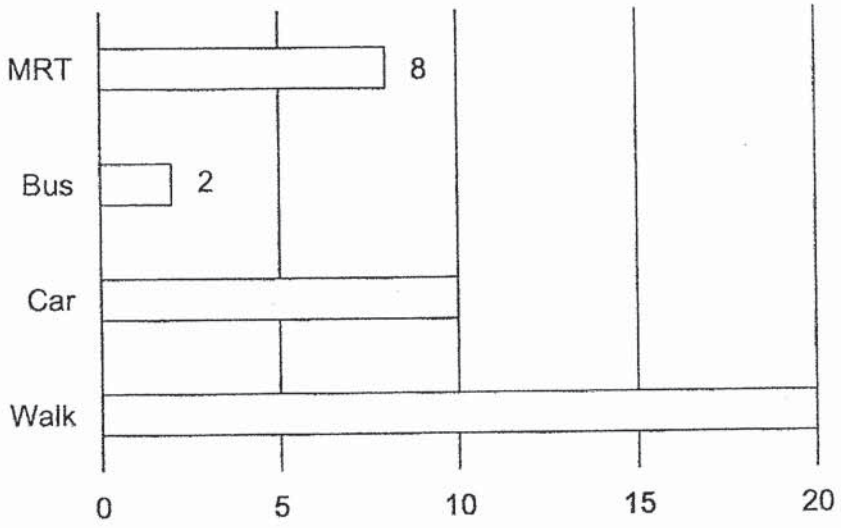


(1) ∠ADE
(2) ∠BDG
(3) ∠CBD
(4) ∠CFG

11. Auntie May had a roll of ribbon, 2m in length. She used 40 cm to wrap a present and cut the remaining into h pieces. How long is each piece?

(1) $\frac{240}{h}$cm
(2) $\frac{200-40}{h}$cm
(3) $(\frac{200}{40} \div h)$ cm
(4) $(200 - \frac{40}{h})$ cm

12. The bar graph shows the different ways students travel to school.
What fraction of the students take the MRT to school?



(1) $\frac{1}{5}$

(2) $\frac{2}{5}$

(3) $\frac{1}{4}$

(4) $\frac{4}{5}$

13. 10 girls and 5 boys lined up in a row. There were no boys standing next to each other. Between every two boys, there were 2 girls. The distance between two girls was 50 cm apart while the distance between a girl and a boy is 100 cm. How long was the line formed by the children?

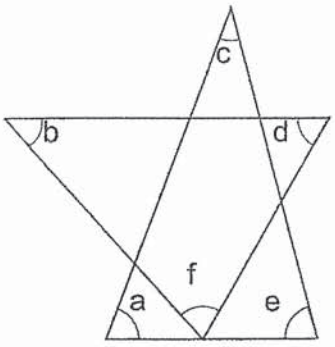
(1) 600 cm

(2) 750 cm

(3) 1000 cm

(4) 1150 cm

14. The figure below, not drawn to scale, $\angle f$ is twice the sum of $\angle b$ and $\angle d$. Find the sum of $\angle a + \angle b + \angle c + \angle d + \angle e$.



(1) 240°
(2) 270°
(3) 300°
(4) 360°

15. A table with 4 columns is filled with numbers in a certain pattern. The first 4 rows are shown in the table below.

	Column A	**Column B**	**Column C**	**Column D**
Row 1	0	1	2	3
Row 2	7	6	5	4
Row 3	8	9	10	11
Row 4	15	14	13	12
⋮	⋮	⋮	⋮	⋮

In which column will the number 487 appear?

(1) Column A
(2) Column B
(3) Column C
(4) Column D

End of Booklet A

AT / GAL / WSW / EL / LYL	Index No.						—	

SINGAPORE CHINESE GIRLS' SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS
PAPER 1

BOOKLET B

Name : _____( )

17 August 2021

Class : Primary 6 SY / C / G / SE / P

Paper 1	Mark attained	Max Mark
Booklet B		25

15 Questions
25 Marks

Total Time for Booklets A and B: 1 h

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.
You are **not allowed** to use a calculator

Booklet B

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. **(5 marks)**

Do not write in this column

16. Find the value of $3.06 - 1.2$.

Ans: _____

17. Express $3\frac{5}{8}$ as a decimal, rounded off to 2 decimal places.

Ans: _____

18. Nadine bought a mug that cost $20 before GST. What is the amount she had to pay after adding 7% GST?

Ans: $_____

3

19. 5 years ago, William's father was 7 times as old as he was. William is 10 years old now. How old is William's father now?

Do not write in this column

Ans: _____

20. If 99 x 9 = h, find 99 x 99 in terms of h.

Ans: _____

2

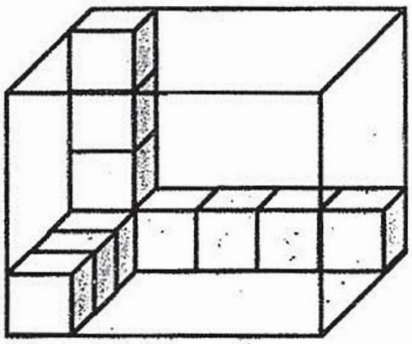
Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. **(20 marks)**

Do not write in this column

21. Jimmy saved $1.50 every day. Nora saved $0.50 more than Jimmy each day. How much money did they save altogether after 3 days?

Ans: $_____

22. The rectangular tank below is filled with 11 cubic blocks. How many more cubic blocks is needed to fill the tank completely?



Ans: _____

4

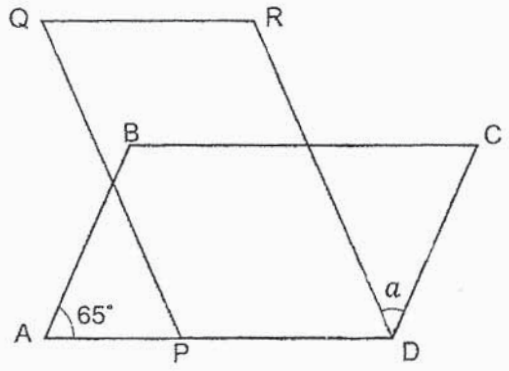
23. Peter and John were reading the same book. Peter started on Monday and read 10 pages each day. John started reading on Wednesday and they both completed reading the book on Sunday. Given that John read the same number of pages each day, how many pages did John read each day?

Do not write in this column

Ans: _____

---

24. Two identical parallelograms overlapped as shown below. Find $\angle a$.



Ans: _____ °

4

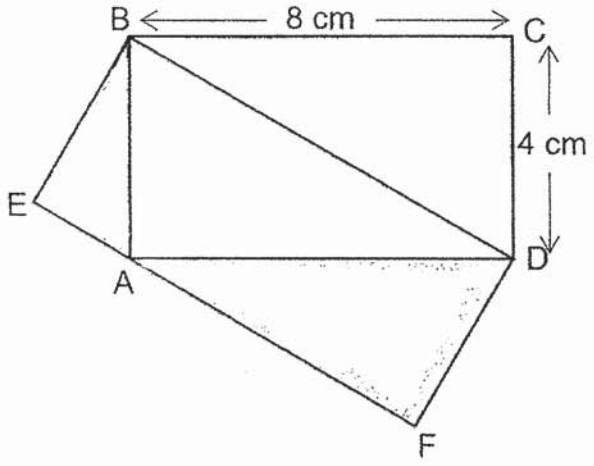
---

25. Bala had just enough money to buy either 12 erasers or 3 pens. He bought a pen and wanted to spend the rest of his money on erasers. How many erasers can he buy?

Do not write in this column

Ans: _____

26. The figure below shows two rectangles, ABCD and BEFD, overlapping. Find the area of the shaded part.



Ans: _____ cm^2

4

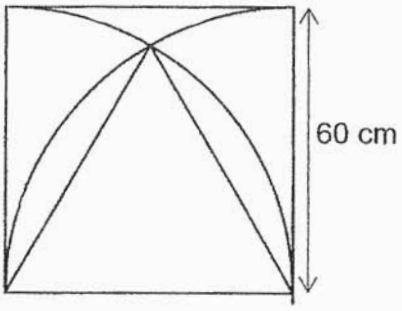
27. Mr Wong bought 3 2 l-bottled drinks for a party. He poured $\frac{1}{8}l$ of drinks into each cup. How many cups can Mr Wong fill?

Do not write in this column

Ans: _____

---

28. The figure below shows a square of side 60cm and 2 quadrants overlapping. Find the perimeter of the shaded part. Leave your answer in π .



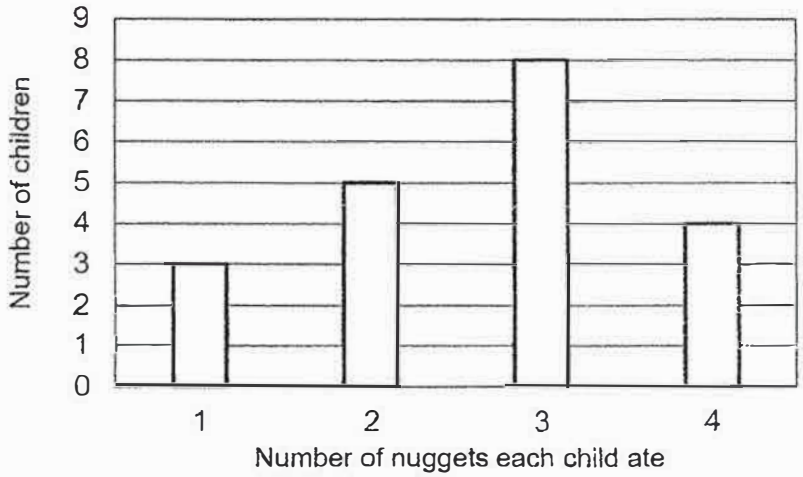
Ans: _____cm

4

---

29. The graph below shows the number of chicken nuggets a group of children ate at a party. How many chicken nuggets did the children eat altogether?

Do not write in this column

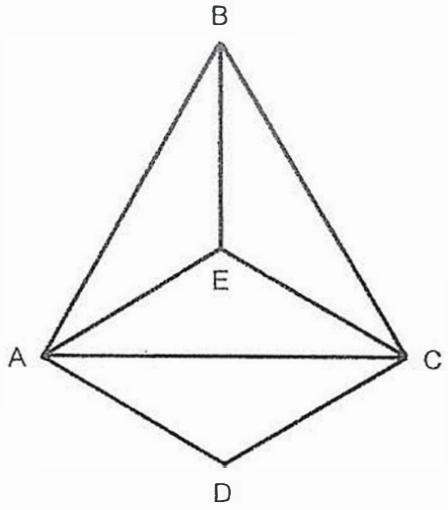


Ans:_____

2

30. The figure ABCD, not drawn to scale, consists of 4 identical isosceles triangles.

Do not write in this column



Each of the statements below is either true, false or not possible to tell from the information given. For each statement, put a tick ✓ to indicate your answer.

Statement	True	False	Not possible to tell
a) ∠ADC is 90°			
b) Triangle ABC is an equilateral triangle.			

2

End of Booklet B

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SINGAPORE CHINESE GIRLS' SCHOOL

PRELIMINARY EXAMINATION 2021

PRIMARY 6

MATHEMATICS

PAPER 2

Name : _____( ) **17 August 2021**

Class : Primary 6 SY / C / G / SE / P

	Mark	Max Mark	Parent's Signature
Paper 2		**55**	

17 Questions
55 Marks

Total Time for Paper 2: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.
You **are allowed** to use the calculator

Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. **(10 marks)**

Do not write in this column

1. At a sale, mugs were sold at $1.90 each and a free mug was given for every 2 mugs purchased. How much must Benny pay if he needed to get 15 mugs?

Ans: $_____

2. The table records the time taken by four students to complete a race.

Student	Time in seconds
Ali	12.1
Bing Wen	11.9
Charlie	13.8
Devi	11.8

(a) Who was the fastest?

(b) What was the average time taken by the four students to complete the race?

Ans: (a) _____

(b) _____ s

4

3. 3 pears cost $1 more than 4 apples. Given that the cost of 4 apples is $y,
(a) Express the cost of an apple in terms of y.
(b) Express the cost of 12 pears in terms of y.

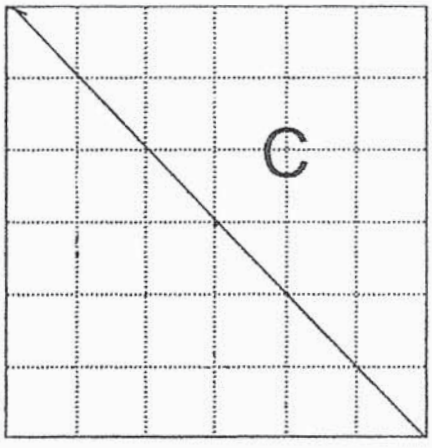
Do not write in this column

Ans: (a) $_____

(b) $_____

---

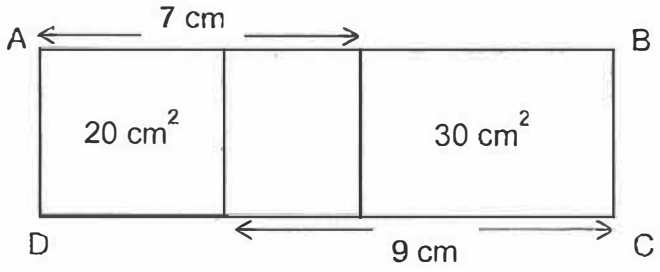
4. Joshua had a square piece of paper and cut it into 3 triangles. The ratio of the area of the triangles A to B to C is 1 : 2 : 3. Illustrate how Joshua cut the square piece of paper below and label triangles A and B clearly.



4

5. In the figure below, not drawn to scale, Rectangle ABCD is cut into 3 parts. The area of 2 of the rectangles are 20 cm^2 and 30 cm^2. Find the area of the shaded rectangle.

Do not write in this column



Ans: _____ cm^2 [2]

2

For questions **6** to **17**, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [ ] at the end of each question or part-question. **(45 marks)**

Do not write in this column

6. Mr Chan and Mr Toh had some money. $\frac{1}{4}$ of Mr Chan's money was \$33 more than $\frac{1}{3}$ of Mr Toh's. If they had \$1000 altogether, how much money does Mr Toh have?

Ans: _____ [3]

7. Mrs Anand had some pasta sauce and wanted to add some minced meat into the sauce. After adding 240 g of minced meat, $\frac{3}{5}$ of the mixture was made of sauce. She added more minced meat and, in the end, $\frac{9}{20}$ of the mixture was made of sauce. How much minced meat did Mrs Anand add to the pasta sauce altogether?

Ans: _____ [3]

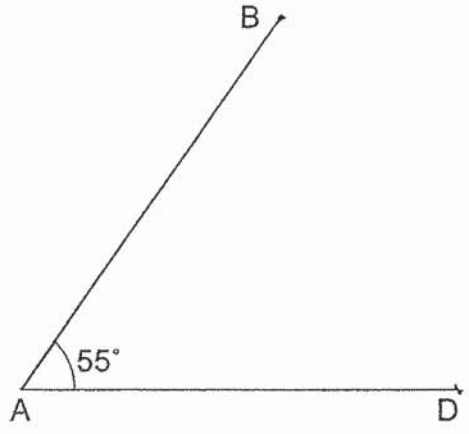
6

8. At ABC bookshop, there were 3 times as many pens as rulers. After selling an equal number of pens and rulers, there 5 times as many pens as rulers left. Given that there were 35 pens left, how many stationery did ABC bookshop sell altogether?

Do not write in this column

Ans: _____ [3]

9. In the space below, ∠DAB is 55°. ABCD is a trapezium where AB is parallel to CD and BC is perpendicular to CD.
(a) Complete the trapezium by drawing 2 lines and label point C.
(b) Measure the length of CD.



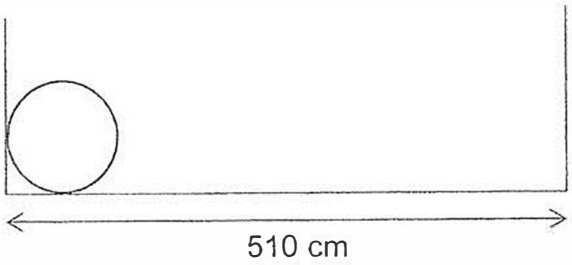
[2]

Ans: (b) _____ [1]

6

10. A gym ball, 20 cm in diameter, was rolled across the length of a 510-cm room and back to its original position. How many **complete rotations** did the gym ball make?

Do not write in this column

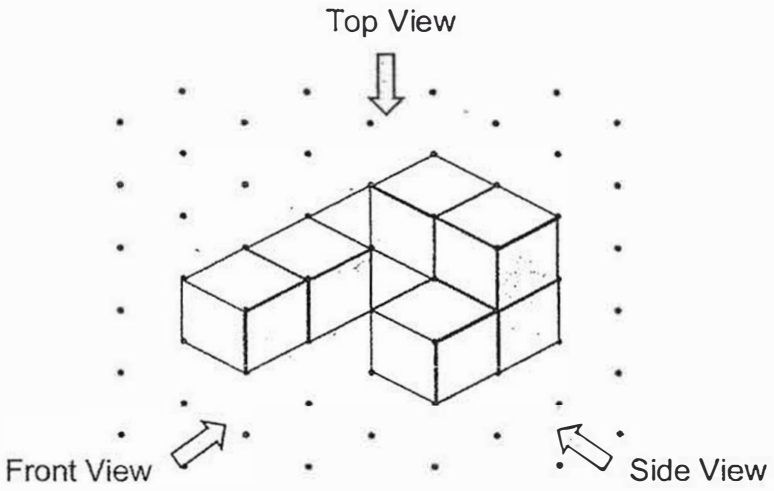


Ans: _____ [3]

3

11. Danny stacked 8 cubes 2-cm cubes and glued them together to form the solid below.

Do not write in this column



(a) Draw the top and side view of the solid on the grids below.

Top View

Side View

[2]

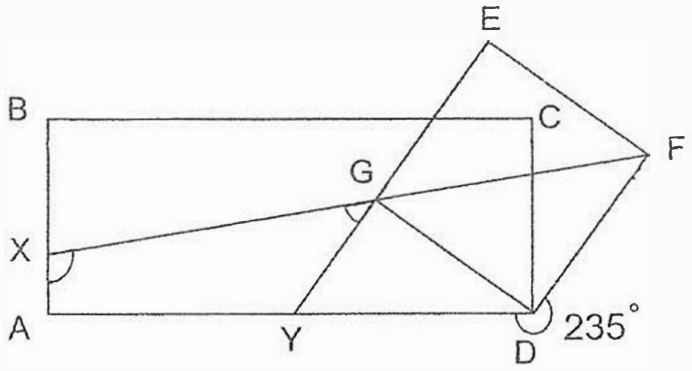
(b) Danny decided to paint the solid, including the base, blue. What is the total surface area he had to paint?

Ans: (b)_____ [2]

4

12. In the figure below, not drawn to scale, ABCD is a rectangle and EFDG is a square. Given that EGY and FGX are straight lines, and ∠FDY is 235°, find
(a) ∠XGY and
(b) ∠FXA

Do not write in this column



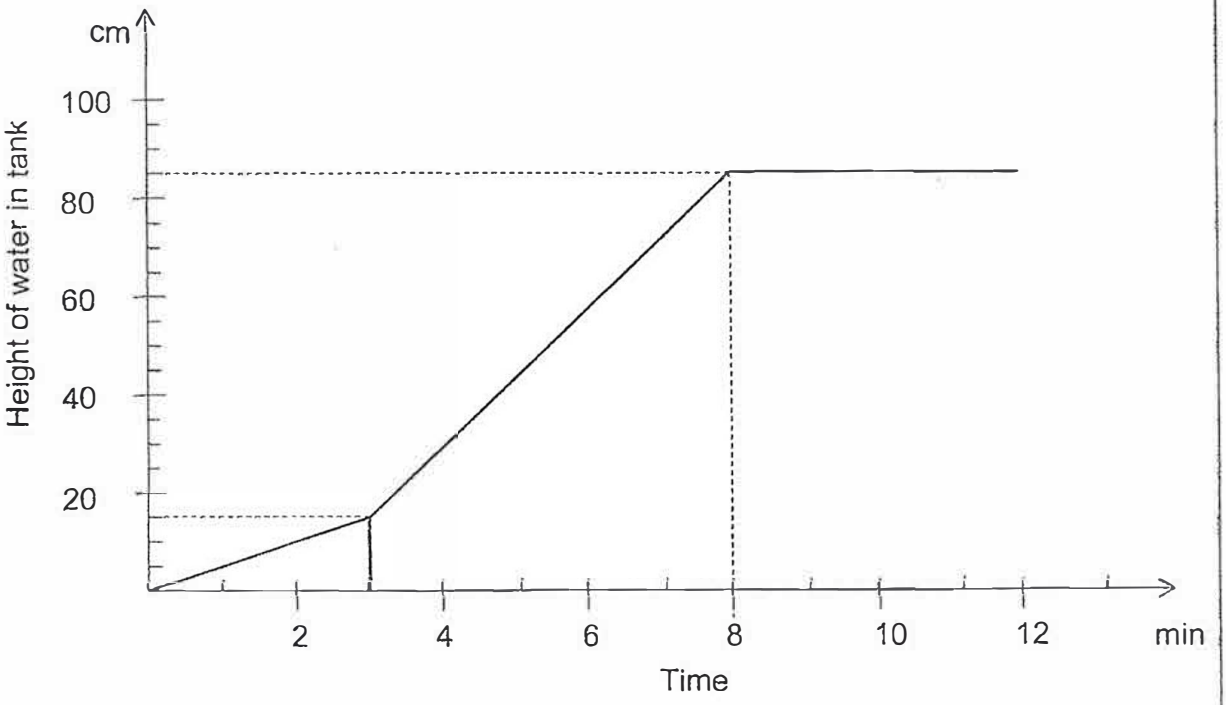
Ans: (a)_____[1]

(b)_____[3]

4

13. Mr Tan wanted to fill a tank, 120 cm long and 75 cm wide, with water. Tap A was turned on to fill the tank first while Tap B was turned on 3 minutes later. Mr Tan then left the taps running and only came back at the 12th minute mark. The graph below shows the height of the water in the tank over time.
(a) Find the volume of the tank.
(b) What is the rate of flow of water of Tap B in ℓ/ min?

Do not write in this column



Ans: (a)_____[2]

(b)_____[3]

5

14. Dest Benki offered a combo deal where a refrigerator and a television set cost $2340. In the end, it was a 22% discount of the original total.

(a) How much was the total cost of a refrigerator and television set originally?
(b) Given that the original cost of the television set was $1100, find the original cost of the refrigerator.

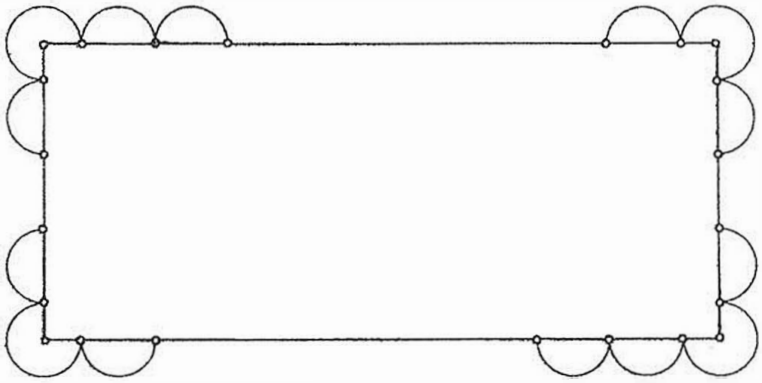
Do not write in this column

Ans: (a)_____ [2]

(b) _____ [2]

4

15. Sally wanted to make a card using semi-circles and quadrants of radius 1.5 cm all around a rectangular card. She attached the design using pins as shown below. The length of the rectangular card is 24 cm and its perimeter is 72 cm. Find the total area of the card.
(Using the value of π in the calculator, round off your answer to 2 decimal places.)



Do not write in this column

Ans: _____ [5]

5

Do not write in this column

16. Mrs Salim spent \$88.40 on some files and notebooks. She spent \$18.40 more on files than notebooks. She bought $\frac{3}{7}$ as many files as notebooks. Each file costs \$3.20 more than a notebook. How much does each file cost?

Ans: _____ [4]

4

17. A group of students went on a trip to the Zoo and was split equally into two groups. Group A had 8 more girls than boys. When 4 boys from Group A joined group B, the number of boys in Group A and B became the same. Given that there are 56 girls altogether, how many students went to the Zoo?

Do not write in this column

Ans: _____ [4]

End of Paper 2

~ Please check your work thoroughly. ~

4

YEAR : 2021
LEVEL : PRIMARY 6
SCHOOL : SCGS
SUBJECT : MATHEMATICS
TERM : PRELIMINARY

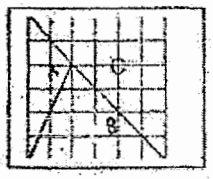
BOOKLET A (PAPER 1)

Q1	4	Q2	2	Q3	3	Q4	3	Q5	1
Q6	2	Q7	4	Q8	4	Q9	4	Q10	2
Q11	2	Q12	1	Q13	4	Q14	1	Q15	1

BOOKLET B (PAPER 1)

Q16	1.86	Q17	$5 \div 8 = 0.625$ $3.625 \approx 3.63$
Q18	100% - $20 1% - $0.20 7% - $0.20 X 7 = $1.40 $20 + $1.40 = $21.40	Q19	10 -5 = 5 10 – 5 70 – 5 X 7 = 35 35 + 5 = 40
Q20	99 X 99 = 99 (9X11) =h x 11 = 11h	Q21	$1.50 + $0.50 = $2.00 $1.50 x 3 = $4.50 $2.00 x 3 = $6.00 $6.00 + $4.50 = $10.50
Q22	4 x 3 = 12 3 x 3 = 9 12 x 3 = 36 36 + 9 + 12 + 12 = 69	Q23	Total no.of pages – 10 x 7 = 70 70 ÷ 5 = 14
Q24	∠ADC = 180° - 65° = 115° 115° - 65° = 50°	Q25	12E = 3p 1p = 12 ÷ 3 = 4E 12 – 4 = 8
Q26	8 x 4 = 32 32 ÷ 2 = 16cm2	Q27	2L x 3 = 6L $6 \div \frac{1}{8} = \frac{6}{1} \times \frac{8}{1} = \frac{48}{1} = 48$
Q28	90° - 60° = 30° Arc – $(\frac{30}{360})$ (2 x π x 60) $= \frac{1}{12} \times 2 \times \pi \times 60 = 10\pi$ $10\pi + 10\pi + 60 = 20\pi + 60$cm	Q29	3 x 1 = 3 5 x 2 = 10 8 x 3 = 24 4 x 4 = 16 16 + 24 + 10 + 3 = 53
Q30	a) False b) True		

PAPER 2

Q1	$1.90 X 10 = $19	Q2	a) Devi b) 49.6 ÷4 =12.4s
Q3	a) 3p = 4a + $1 4a = $y 1a = $($\frac{y}{4}$) b) 4 x (y+1) = $(4y+4)	Q4	$\frac{1}{2}$ x 6 x 6 = 18 C – 18units 3u – 18 A-1u – 6 B- 12u 
Q5	Area = 5 x 3 = 15cm2	Q6	33 x 4 = 132 1000 – 132 = 868 7u # 868 1u = 868 ÷ 7 = 124 3u = 124 x 3 = $372
Q7	6u – 240 1u – 40 11u – 440g	Q8	5u – 35 1u - 35÷ 5 = 7 2u – 7 x 2 = 14
Q9	a)  b) 2.9cm	Q10	510 – 20 = 490 490 ÷ 20π ≈ 7 rounds 7 x 2 =14
Q11	a) Top View  Side View  b) Top = 6 Front = 5 Side = 5 (5 + 5 + 6) x 4 x 2 = 128	Q12	a) <XGY = 45° b) 360° - 90° - 45° - 125° =100°
Q13	a) 120 x 75 x 85 = 765000cm3 b) 120 x 75 x 15 = 135000 135000 ÷3 = 45000 70 x 120 x 75 = 630000 45000 x 5 = 225000 630000 – 22500 =405000 405000 ÷5 =81000 ≈81L/min	Q14	a) 100% - 22% = 78% 78% - $2340 1% - $2340 ÷78 =$30 100% - $30 x 100 =$3000 b) $3000 - $1100 = $1900
Q15	72 – 24 – 24 = 24 24 ÷2 = 12 Area of rec = 12 x 24 = 288 12 ÷ 1.5 = 8 8 – 6 =2	Q16	35 ÷ 7 = 5 53.40 ÷ 3 = 17.80 12.80 ÷ 3.20 = 4 units 3 x 4 = 12 $\frac{53.40}{12}$ = 4.45

	24 ÷ 1.5 = 16 16 − 8 = 8 Area of $\frac{1}{4}$ circle = πx1.5x1.5x$\frac{1}{4}$ =1.767 No. of $\frac{1}{4}$ circle = 32 + 2 + 8 + 8 + 2 = 52 Area of all $\frac{1}{4}$ circle = 52 x 1.767 =91.884 Area of total = 91.884 + 288 =379.884 ≈ 379.88cm2		
Q17	1u + 8 + 1u + 16 = 56 2u + 24 = 56 2u = 32 1u = 16 1u + 1u + 8 16 + 16 + 8 =32		

Name: _____ ( )

Class: Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2021 Preliminary Examination

Paper 1

Booklet A

24 August 2021

15 questions
20 marks

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

This booklet consists of 12 printed pages.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet. (20 marks)

---

1. What is the value of the digit 8 in the number 248 671?

   (1) 8 tens

   (2) 8 hundreds

   (3) 8 thousands

   (4) 80 thousands

2. Which one of the following is larger than $\frac{3}{4}$?

   (1) $\frac{4}{9}$

   (2) $\frac{5}{8}$

   (3) $\frac{6}{7}$

   (4) $\frac{7}{10}$

3. Ava, Ben and Chad have a total amount of $42.
Which one of the following **cannot** be the ratio of the amount of money Ava has to the amount of money Ben has to the amount of money Chad has?

(1) 1 : 1 : 5

(2) 1 : 2 : 3

(3) 3 : 3 : 4

(4) 4 : 1 : 4

4. Darius exchanges 100 coins for a $50 note with his aunt. All the coins have the same value. What is the value of each coin?

(1) 50¢

(2) 20¢

(3) 10¢

(4) 5¢

5. Esham took 4 h 20 min to complete his project. He was 55 minutes slower than Foo Xin. How long did Foo Xin take to complete his project?

(1) 3 h 25 min

(2) 3 h 35 min

(3) 4 h 5 min

(4) 5 h 15 min

6. A cuboid has a square base of side 60 cm. The height of the cuboid is 80 cm. What is the volume of the cuboid?

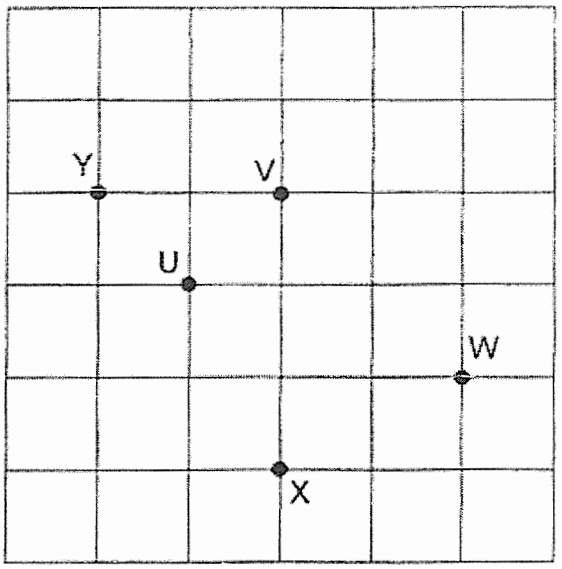
(1) 288 000 cm^3

(2) 72 000 cm^3

(3) 18 000 cm^3

(4) 4800 cm^3

7. Glory is standing at V facing south now. Then she makes a 3 right-angled turn in a clockwise direction. Where will she be facing in the end?



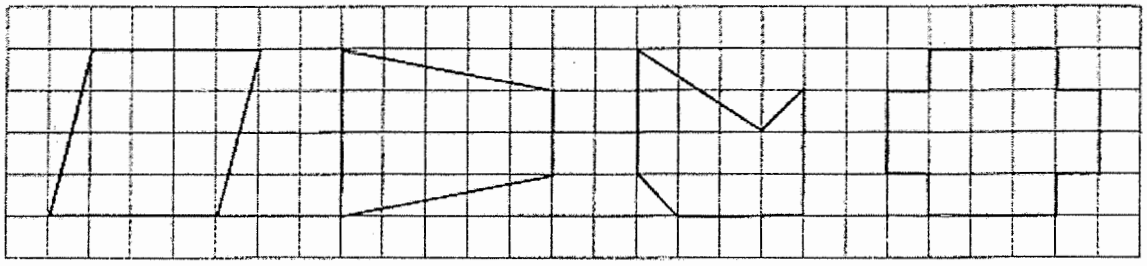
(1) U

(2) W

(3) X

(4) Y

8. Which two figures, A, B, C and D, have both parallel and perpendicular lines?



A B C D

(1) A and B

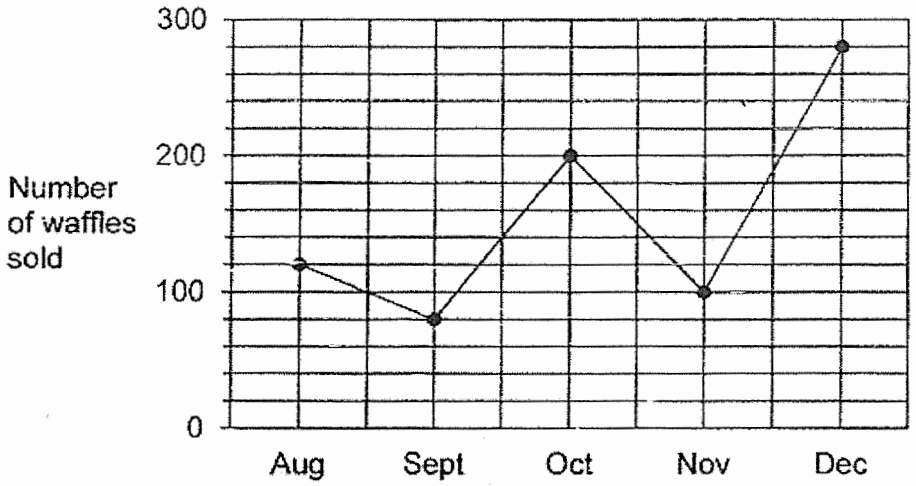
(2) A and D

(3) B and C

(4) C and D

Use the information below to answer Questions 9 and 10.

The line graph shows the number of waffles sold by Waffle-licious Café from August to December in a year. Each waffle was sold at $3 from August to October. From November to December, each waffle was sold at $4.



9. How many more waffles did Waffle-licious Café sell in October than in August?

(1) 80

(2) 90

(3) 120

(4) 200

10. What was the total amount of money collected by the café in September and December?

(1) $1160

(2) $1360

(3) $2360

(4) $2520

11. Some men and women took part in a survey to vote for their favourite food. The table shows their choices and the number of men and women who voted for each type of food. Each of them voted for only one type of food.

Favourite Food	Mee Rebus	Nasi Lemak	Prawn Noodles	Chicken Rice
Total number of men and women	49	90	53	98

40% of the total number of men and women who voted for mee rebus, prawn noodles and chicken rice were women. 54 men voted for nasi lemak. How many women took part in the survey altogether?

(1) 174

(2) 156

(3) 134

(4) 116

12. Mrs Hong paid $205 for a total of 25 similar bowls and similar plates. Each bowl cost $8. The total cost of the bowls was $35 more than the total cost of the plates. What fraction of the bowls and plates she bought were plates?

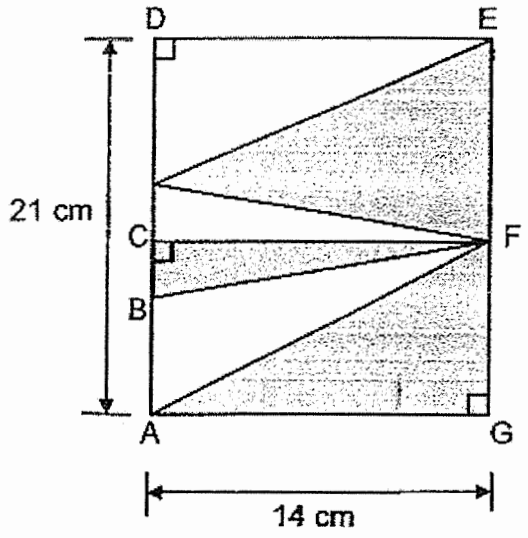
(1) $\frac{2}{5}$

(2) $\frac{3}{5}$

(3) $\frac{7}{25}$

(4) $\frac{18}{25}$

13. The figure shows a rectangle ADEG. The area of Triangle BCF is 21 cm². What is the total area of the unshaded parts in ADEG?



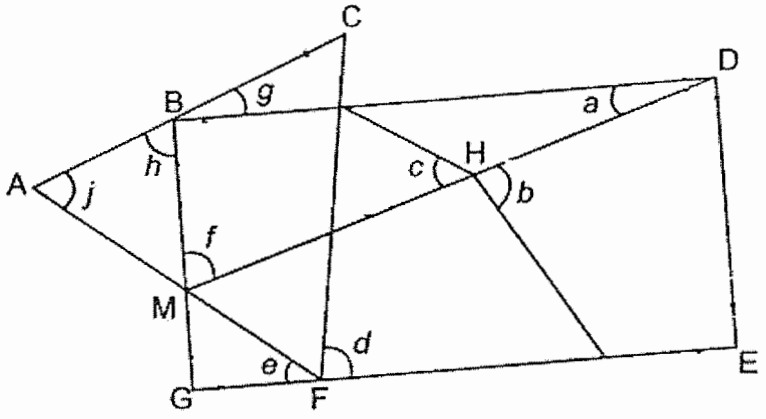
(1) 294 cm²

(2) 168 cm²

(3) 147 cm²

(4) 126 cm²

14. ACF is an equilateral triangle and BGED is a rectangle. MHD is a straight line. Which one of the following statements is true?



(1) $\angle a = 180° - \angle f$

(2) $\angle d + \angle e = \angle j$

(3) $\angle h = 90° - \angle g$

(4) $\angle c = \angle b$

15. At first, a tank contained some water. Without spilling, Ivanka poured $\frac{1}{8}$ of the water from the tank into an empty pail. Then she poured $\frac{4}{5}$ of the remaining amount of water from the tank into another empty tub. The amount of water left in the tank was $2\frac{1}{10}$ ℓ. How much water did the tank contain at first?

(1) 10.5 ℓ

(2) 12.0 ℓ

(3) 14.7 ℓ

(4) 28.0 ℓ

End of Booklet A

Name: _____ ( )

Class: Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2021 Preliminary Examination

Paper 1

Booklet B

24 August 2021

Booklet A	**20**
Booklet B	**25**
Total (Paper 1)	**45**

15 questions
25 marks

Total Time for Booklets A and B: 1 hour

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of calculators is **NOT** allowed.

This booklet consists of 11 printed pages.

Questions **16** to **20** carry **1** mark each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (5 marks)

Do not write in this space

16. Write 850 thousandths as a fraction. Leave your answer in the simplest form.

Ans: _____

17. Subtract 2.07 from 9.

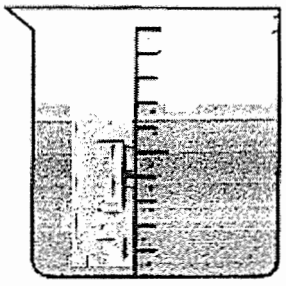
Ans: _____

18. There were 3000 visitors at a health talk on Wednesday. This was 600 fewer than the number of visitors on Thursday. What was the percentage increase in the number of visitors from Wednesday to Thursday?

Do not write in this space

Ans: _____ %

19. The beaker shows the amount of water left after Najil poured out 400 ml of water.



How much water was there in the beaker before Najil poured out 400 ml of water?

Ans: _____ ℓ

20. The table below shows the number of members in a judo club from 2017 to 2020.

Do not write in this space

Year	Number of girls	Number of boys
2017	6	18
2018	11	19
2019	8	17
2020	13	11

Which two years had the same total number of members?

Ans: _____ and _____

Questions **21** to **30** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

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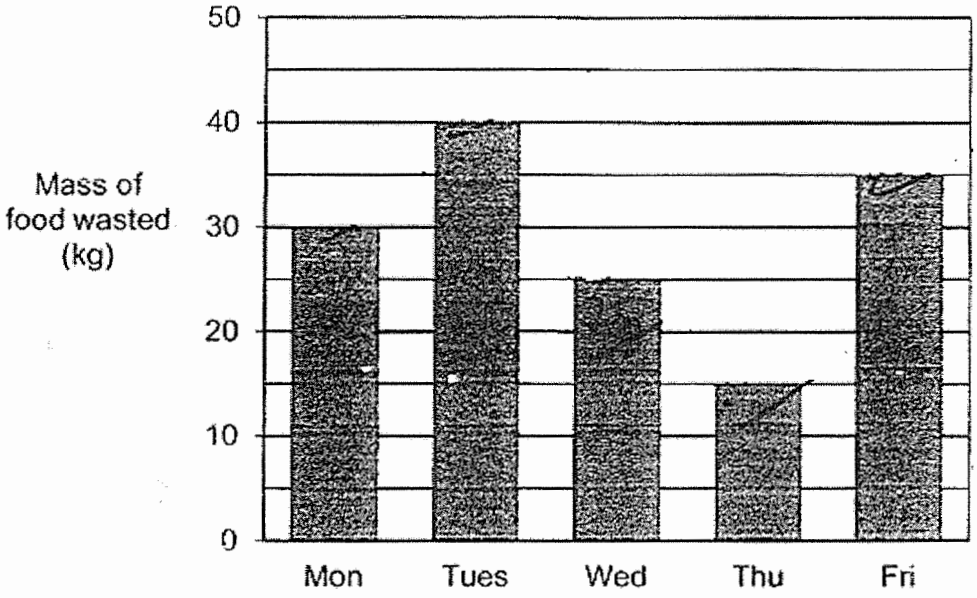
21. The bar graph shows the mass of food wasted in a factory over five days.



On which day was the mass of food wasted closest to the average mass of food wasted over the five days?

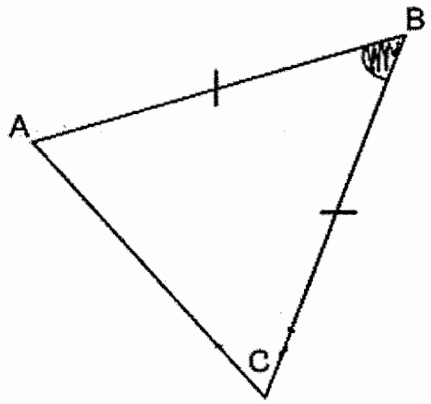
Ans: _____

22. The total age of Simone, Odelia and Ellie is $(11k + 13)$ years old. Simone is 8 years old and Odelia is $5k$ years old. How old is Ellie?

Do not write in this space

Ans: _____

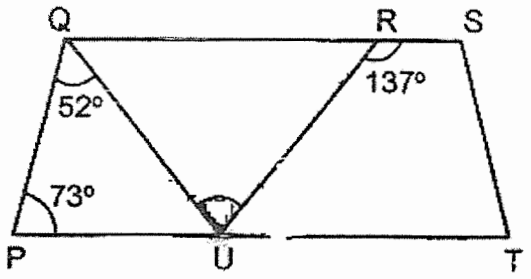
23. In the figure, $\angle ACB = 296°$. Find $\angle ABC$.



296°

Ans: _____°

24. The figure shows a trapezium PTSQ. Find ∠QUR.



Ans: _____ °

25. A shirt cost $\frac{1}{2}$ as much as a tie. Yun Ee spent $\frac{1}{3}$ of her money on 2 ties and 2 shirts. Then she spent $\frac{1}{4}$ of the remaining amount of money on some more shirts. How many shirts did she buy altogether?

Ans: _____

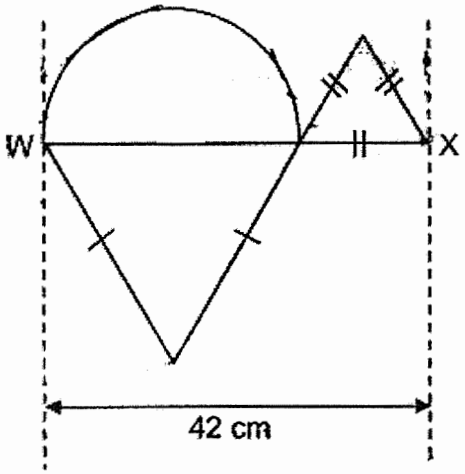
Do not write in this space

26. A windmill makes a total of 80 revolutions in every 4 minutes. At this rate, how long does the windmill take to make a total of 3200 revolutions?

Do not write in this space

Ans: _____ h

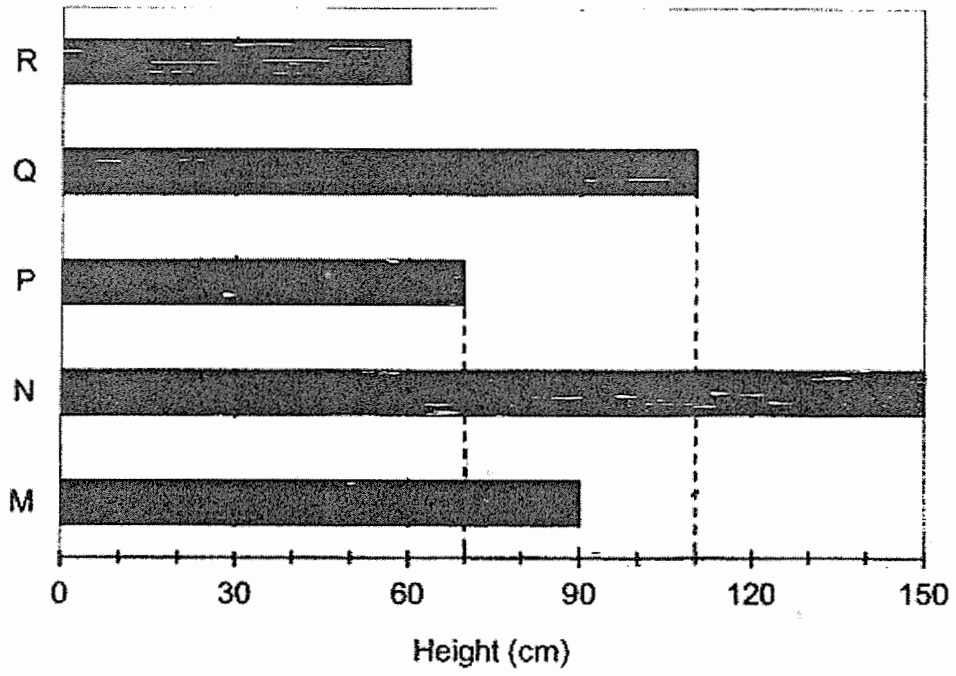
27. The figure shows a piece of wire bent into the shape of a semicircle, a small triangle and a big triangle. The length of WX is 42 cm. The ratio of the length of 1 side of the big triangle to the length of 1 side of the small triangle is 2 : 1. What is the length of the piece of wire? (Take $\pi = \frac{22}{7}$)



Ans: _____ cm

Study the graph and answer question 28(a) and (b).

The bar graph shows each of the height of 5 fans, M, N , P, Q and R.



28. (a) How many of the fans have height more than 70 cm?

(b) Another fan, S, has a height of 20 cm more than the difference between the height of the tallest fan and that of the shortest fan. Find the height of S.

Ans: (a) _____

(b) _____ m _____ cm

Do not write in this space

29. Jing had 2 kg of tea leaves at first. She used $\frac{1}{5}$ of the tea leaves to make tea. She gave $\frac{7}{10}$ kg of the tea leaves to Kit See. Jing bought some more tea leaves and then had three times as much tea leaves as she had at first. How much tea leaves did Jing buy?

Do not write in this space

Ans: _____ kg

30. The figure is made up of two rectangles ABFG and BCDE joined together.

The length and breadth of each rectangle are whole numbers

DE is longer than AG and BE is longer than $\frac{1}{2}$ of BF. Find the perimeter of the figure.

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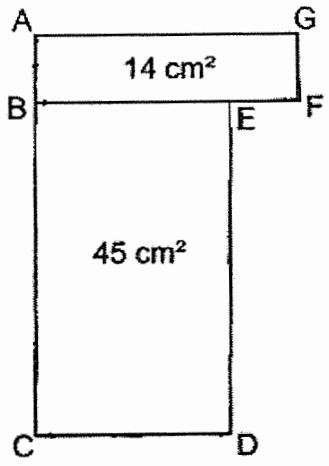


Ans: _____cm

End of Booklet B

Name: _____ ( )

Class: Primary 6 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL (PRIMARY)

Primary 6 Mathematics

2021 Preliminary Examination

Paper 2

24 August 2021

Paper 1	**45**
Paper 2	**55**
Total	**100**

17 questions
55 marks

TOTAL TIME FOR PAPER 2 : 1 HOUR 30 MINUTES

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.
Write your answers in this booklet.
The use of an approved calculator is expected, where appropriate.

This booklet consists of 18 printed pages.

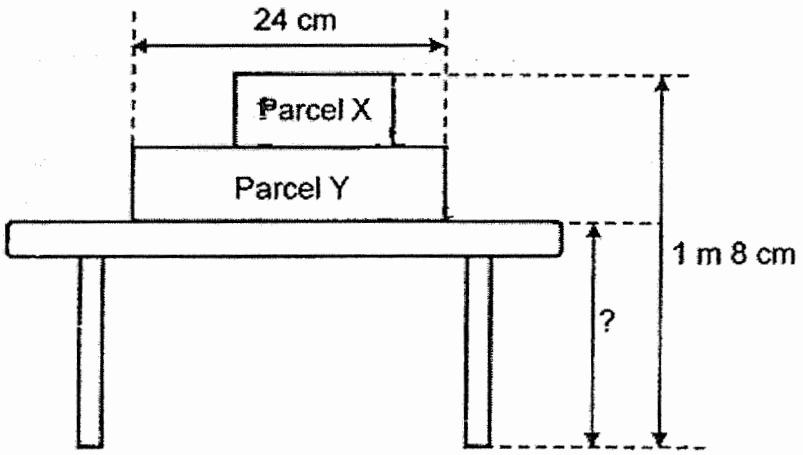
Questions **1** to **5** carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Do not write in this space

1. Among 760 cups of bubble tea, 490 of them had no pearls. The remaining cups of bubble tea with pearls were sold for a total amount of $1836. How much did each cup of bubble tea with pearls cost?

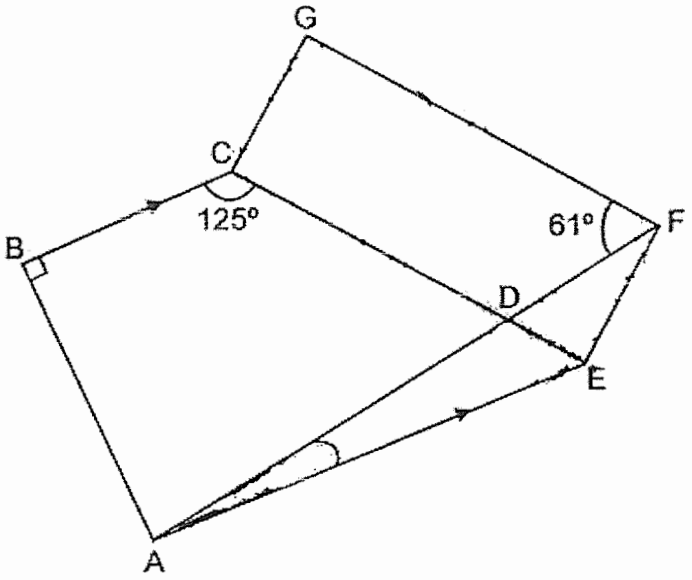
Ans : $ _____

2. Both Parcel X and Parcel Y have the same height. They are placed on a table as shown. The length of Parcel Y is 24 cm and is 4 times its height. What is the height of the table?



Ans : _____ m

3. In the figure, BC // AE and GFEC is a rectangle. ADF is a straight line. Find $\angle FAE$.

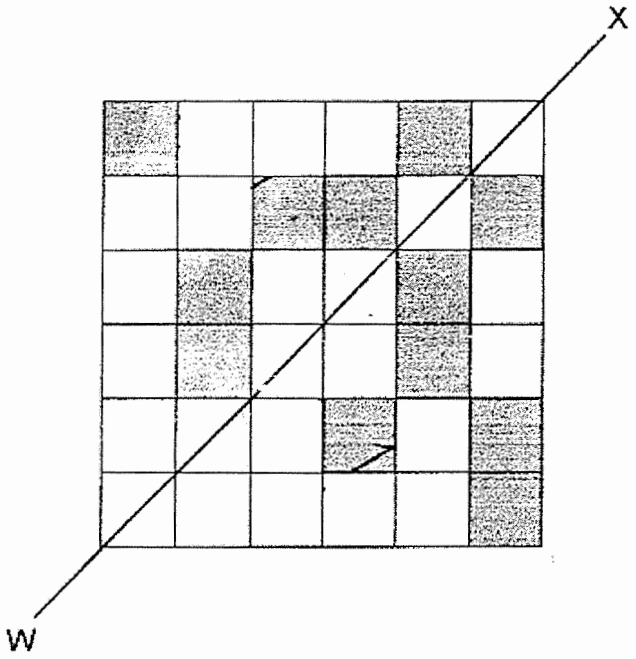


Do not write in this space

Ans : _____ °

4. Study the figure below. Shade the least possible number of squares so that WX is the line of symmetry.

Do not write in this space



5. At first, the average score that a group of men obtained in a gaming contest was 70. When 1 more man with a score of 50 joined in, the average score of all the men became 66 in the end. How many men were there altogether in the end?

Do not write in this space

Ans : _____

For questions 6 to 17, show your working clearly and write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part-question. (45 marks)

Do not write in this space

6. Lindy drew lines to form squares and triangles that follow a pattern.

The first three figures are shown below.

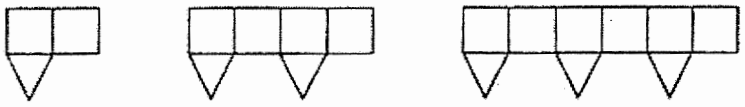


Figure 1 Figure 2 Figure 3

(a) The table below shows the number of lines drawn for each figure.

Complete the table for Figure 4.

Figure Number	Number of squares	Number of triangles	Number of lines drawn
Figure 1	2	1	9
Figure 2	4	2	17
Figure 3	6	3	25
Figure 4			

[1]

(b) What is the total number of squares and triangles in a figure that has 105 lines drawn?

Ans : _____ [2]

7. Reese made some candles and pins for sale. $\frac{3}{8}$ of the items made were candles. She sold $\frac{2}{9}$ of the candles and 84 pins. In the end, she had $\frac{5}{12}$ of the items left. How many pins did Reese make at first?

Do not write in this space

Ans : _____ [3]

8. There are altogether 14 magnets in Set A and Set B. The total mass of both sets of magnets is 950 g. The mass of each of the 6 magnets in Set A is $8y$ g. All the magnets in Set B have the same mass. What is the mass of each magnet in Set B?

Do not write in this space

Ans : _____ [3]

9. The table shows the rates for printing cards at Happy Print Shop.

Do not write in this space

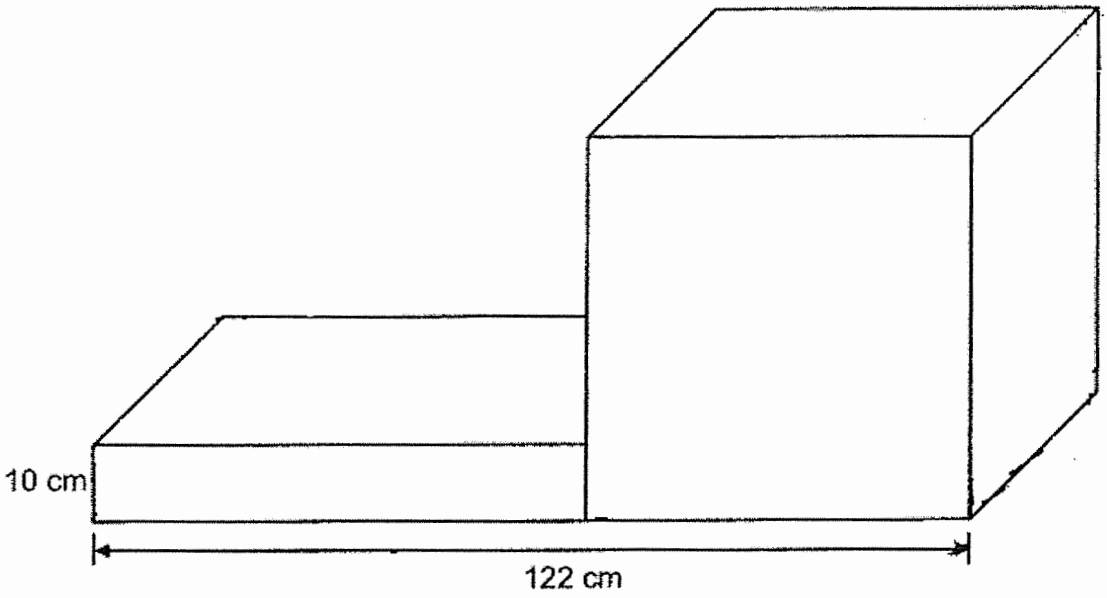
Number of cards	Price
First 300 cards	$180
Every additional card	45¢ each

Murray paid $253.35 to print some cards. How many cards did he print?

Ans : _____ [3]

10. The figure shows a cuboid and a cube joined together. The total length of all the edges of the cube is 720 cm. The breadth of the cuboid is the same as the breadth of the cube. What is the difference in the volume of the cuboid and the cube?

Do not write in this space



Ans : _____ [3]

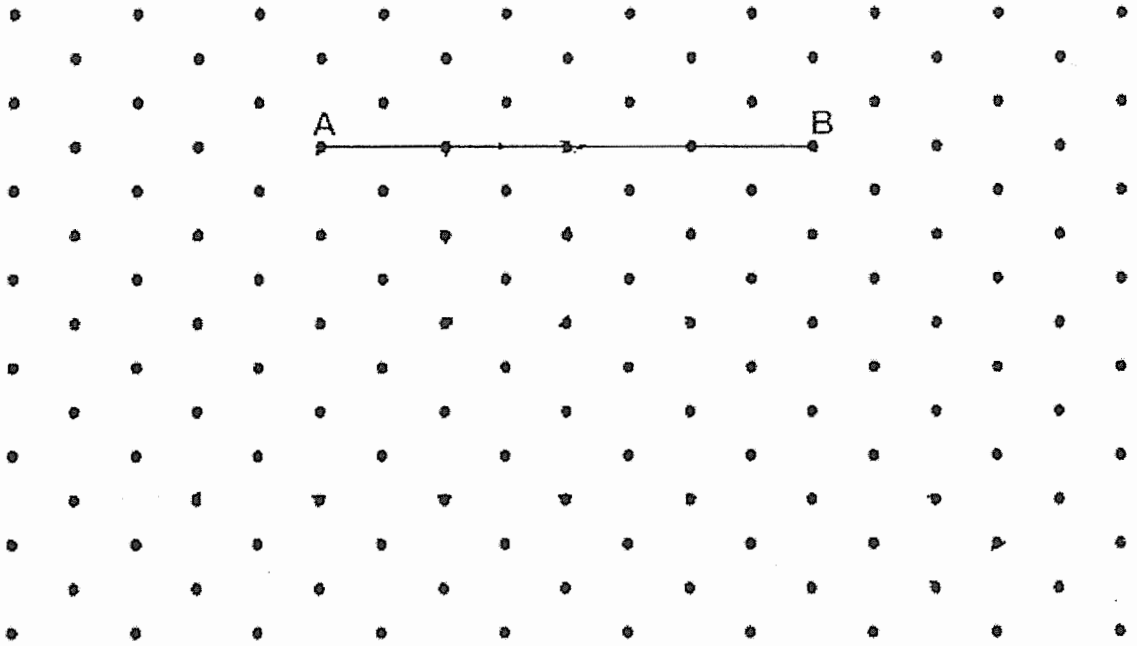
11. The figure shows one side of a trapezium, AB, drawn on an isometric dot.

Do not write in this space

By joining dots on the grid with straight lines,

(a) complete the trapezium by drawing the other three sides such that AB // DC and DC is longer than AB. Label the trapezium ABCD. [1]

(b) draw a rectangle WXYZ such that Z is the midpoint of AB and W is the midpoint of AZ. WX is longer than XY. Label the rectangle WXYZ and measure ZX.



Ans : (b) _____ [2]

12. Vasami jogs every day from Wednesday to Saturday. He does not jog on the other days of the week. Every day from Wednesday to Saturday, he jogs 0.1 km more than the previous day. He jogs an average distance of 1.45 km on Friday and Saturday. What is the average distance that he jogs in a week? Give your answer in metres.

Do not write in this space

Ans : _____ [4]

13. On Monday, Xander and Tristan each received some money from their mother. Xander received $80 less than Tristan. They did not spend any money on Monday. On Tuesday, Tristan gave Xander 40% of his money. On Wednesday, Tristan spent 25% of his remaining amount of money on a wallet which cost $39. What was the total amount of money Xander and Tristan received on Monday?

Do not write in this space

Ans : _____ [4]

14. Some girls and boys took part in a race. At first, the number of girls was $\frac{5}{7}$ of the number of boys. After 10 girls and 32 boys withdrew from the race, the ratio of the number of girls to the number of boys was 5 : 4.

(a) How many children were there altogether in the end?

(b) How many children were there altogether at first?

Do not write in this space

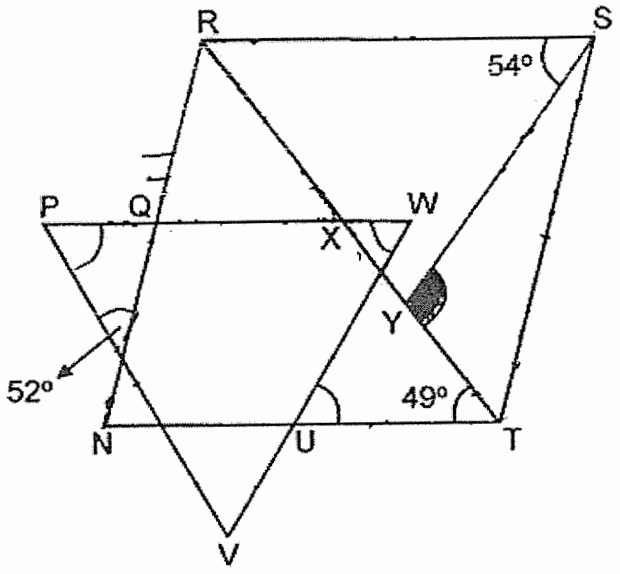
Ans : (a) _____ [3]

(b) _____ [1]

15. The figure shows a triangle WPV with all its sides equal and a rhombus NRST. TR is a straight line.

(a) Find $\angle RXP$.

(b) Find $\angle SYT$.



Do not write in this space

Ans : (a) _____ [2]

(b) _____ [2]

(c) Each statement below is either true, false or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column. [1]

Do not write in this space

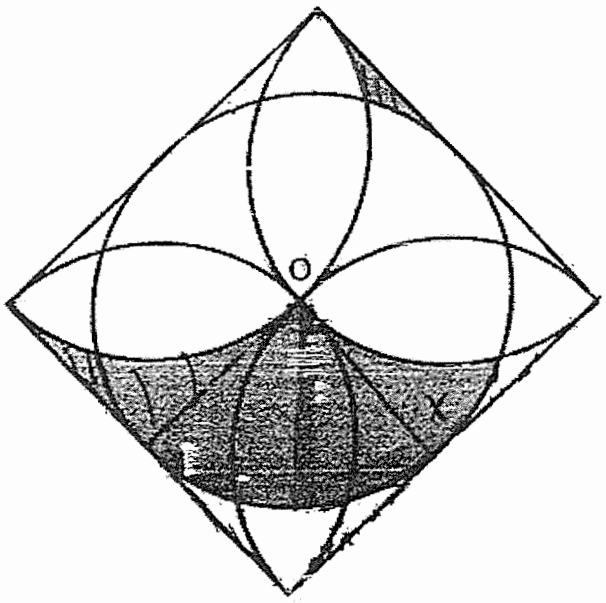
Statement	True	False	Not possible to tell
∠WUT is an obtuse angle.			
UNQW is a trapezium.			

16 The figure is made up of a circle, 4 identical semicircles and a square. The area of the square is 784 cm². O is the centre of the circle.

Do not write in this space

(a) Find the radius of the circle.

(b) Use the calculator value of π to find the total area of the shaded parts.
Leave your answer correct to 1 decimal place.

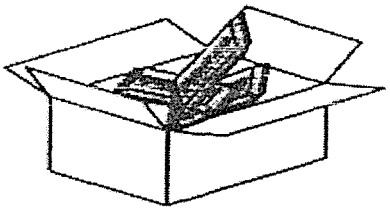
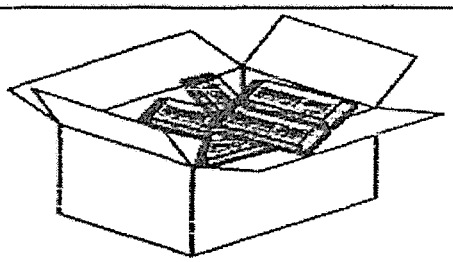


Ans : (a) _____ [1]

(b) _____ [4]

17. Mrs Rafael bought energy bars for 79 pupils at two different sizes and prices shown below. She gave each pupil 2 energy bars.

Do not write in this space

	
1 box of 15 for $18	1 box of 20 for $29

(a) Mrs Rafael spent the least amount of money to buy the energy bars and had the least number of energy bars left over. How many boxes of each type of energy bars did she buy?

(b) How much did Mrs Rafael pay for all the energy bars?

Ans : (a) Boxes of 15 : _____ [3]

Boxes of 20 : _____

(b) _____ [2]

End of Paper

SCHOOL : CHIJ PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 SA2

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	3	4	1	1	1	2	4	1	2

Q 11	Q12	Q13	Q14	Q15
4	1	4	3	2

PAPER 1 BOOKLET B

Q16) $\frac{17}{20}$

Q17) 6.93

Q18) 20%

Q19) 1.8 L

Q20) 2017 and 2020

Q21) Monday

Q22) (6k + 5)

Q23) 52°

Q24) 82°

Q25) 5 shirts

Q26) $2\frac{2}{3}$ h

Q27) 170cm

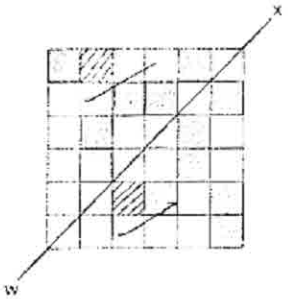
Q28) a) 3
b) 1 m 10 cm

Q29) $5\frac{1}{10}$ kg

Q30) 36 cm

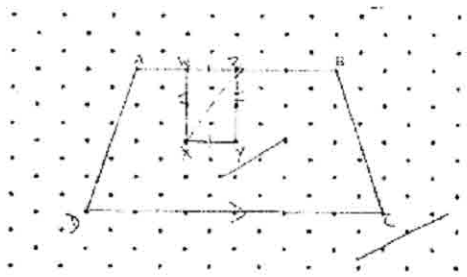
PAPER 2

Q1) **760 – 490 = 270**
1836 ÷ 270 = $6.80

Q2)	24 ÷ 4 = 6 1m8cm = 108cm 108 – 6 – 6 = 96 96cm = 96 ÷ 100 = 0.96m
Q3)	180 – 61 = 119 180 – 125 = 55 180 – 119 – 55 = 6°
Q4)	
Q5)	5
Q6)	a) 8 4 33 b) 39 c)
Q7)	105
Q8)	Set B → 14 – 6 = 8 Total mass of A → 8y x 6 = 48yg Total mass of B → 950g – 49yg (950 – 48y) ÷ 8 = $(\frac{950-48y}{8})$g
Q9)	253.35 – 180 = 73.35 73.35 ÷ 0.45 =163 163 + 300 = 463
Q10)	720 ÷ 12 = 60 122 – 60 = 62 60 x 60 x 60 = 21600 62 x 10 x 60 = 37200 216000 – 37200 = 178800cm³

Q11)

a)



b)3cm

Q12) $771\frac{3}{7}$ m

Q13) (39/25) x 100 = 156
100 – 40 = 60
(156/60) x 100 = 260
260 – 80 = 180
260 + 180 = $440

Q14) a) 54
b) 96

Q15) a) 180 / 3 = 60
180 – 60 – 52 = 68
180 – 49 – 68 = 63°
b) 180 – 49 – 49 = 82
82 – 54 = 28
180 – 28 – 49 = 103°
c) False
False

Q16) a) 14cm
b) 238.1cm²

Q17) a) 8
b) 2
c) $202

2021 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____( ) Date: 18 August 2021

Class: Primary 6 ( ) Time: 8.00 a.m. – 9.00 a.m.

Parent's Signature: _____

MATHEMATICS

PAPER 1

(BOOKLET A)

20

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are NOT allowed to use a calculator.

Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each. For each question, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval on the Optical Answer Sheet. [20 marks]

Q1. Bob took 130 seconds to run round a track.
He was 25 seconds faster than Pete.
How long did Pete take to run round the track?

(1) 1 min 45 s
(2) 1 min 55 s
(3) 2 min 5 s
(4) 2 min 35 s

Q2. 8 hundreds, 5 tenths and 6 thousandths is _____.

(1) 800.056
(2) 800.506
(3) 800.560
(4) 850.006

Q3. P is 5 times of Q. Q is thrice of R. What is the ratio of R to Q to P?

(1) 1 : 15 : 3
(2) 1 : 3 : 15
(3) 3 : 1 : 15
(4) 15 : 1 : 3

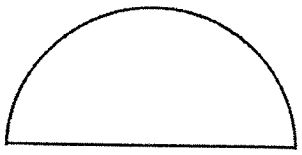
Q4. The number of visitors who went to a flower exhibition was 70 000 when rounded to the nearest hundred.
Which of the following shows a possible number of visitors?

(1) 70 055
(2) 70 051
(3) 69 951
(4) 69 949

Q5. Jenny faced south-east after turning 225° anti-clockwise.
What direction was she facing at first?

(1) North
(2) South
(3) South-east
(4) North-east

Q6. The figure shows a semicircle of radius 21 cm.
Find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)



(1) 66 cm
(2) 87 cm
(3) 108 cm
(4) 174 cm

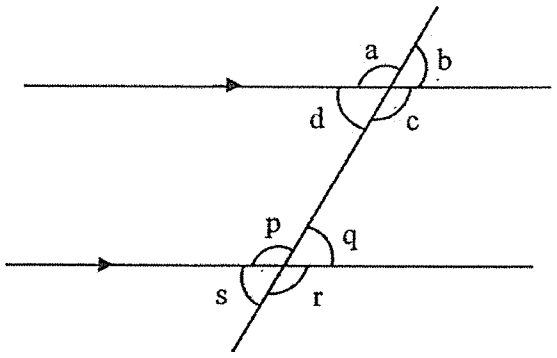
Q7. Which of the following is the same as 20 kg 8 g ?

(1) 20.008 kg
(2) 20.08 kg
(3) 20.8 kg
(4) 2.08 kg

Q8. Find the sum of all the factors of 64.

(1) 62
(2) 93
(3) 127
(4) 135

Q9. Which of the following statements about the angles in the figure are true?



A. $\angle a = \angle r$
B. $\angle b = \angle s$
C. $\angle s = \angle c$
D. $\angle s = \angle q$

(1) A and B only
(2) A and D only
(3) A, B and C only
(4) A, B and D only

Q10. Study the following table carefully.

A	B	C	D
0	1	2	3
7	6	5	4
8	9	10	11
15	14	13	12

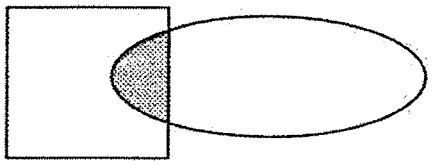
Which column will the number **71** appear in?

(1) A
(2) B
(3) C
(4) D

Q11. Guan Ming has 3 empty bottles **J, K** and **R**. He poured an equal amount of milk into each of them. As a result, 50% of J was filled with milk, 25% of K was filled with milk and 75% of R was filled with milk.
What is the ratio of the capacity of Bottle J to Bottle R to Bottle K?

(1) 1 : 2 : 3
(2) 2 : 3 : 1
(3) 3 : 2 : 6
(4) 3 : 6 : 2

Q12. The figure is made up of a square and an oval.
The ratio of the area of the square to the area of the oval is 2 : 3.
The shaded area is $\frac{1}{6}$ the area of the oval. The shaded area is 36 cm².
Find the area of the figure.



(1) 144 cm²
(2) 216 cm²
(3) 324 cm²
(4) 360 cm²

Q13. The original price of a box of cookies was $m. Aunty Loh bought a dozen such boxes of cookies. She was given a discount of 50 cents for every 2 boxes bought. How much did she pay for the boxes of cookies altogether?

(1) $(6m - 3)
(2) $(6m + 3)
(3) $(12m - 3)
(4) $(12m + 3)

Q14. Jonathan read 3 books in 2 hours. He spent 15 minutes longer to read the first book than the second book. He spent the same amount of time to read the last 2 books. How many minutes did he take to read the first book?

(1) 30 min
(2) 35 min
(3) 45 min
(4) 50 min

Q15. Which of the following fractions is closest to $\frac{3}{4}$?

(1) $\frac{7}{8}$

(2) $\frac{1}{2}$

(3) $\frac{3}{5}$

(4) $\frac{1}{4}$

- END OF BOOKLET A -

TAO NAN SCHOOL 道南学校

SINCERITY & PERSEVERANCE

2021 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____( ) Date: 18 August 2021

Class: Primary 6 ( ) Time: 8.00 a.m. – 9.00 a.m.

Parent's Signature: _____

MATHEMATICS

PAPER 1

(BOOKLET B)

25

INSTRUCTIONS TO CANDIDATE

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are NOT allowed to use a calculator.

Questions **16** to **20** carry 1 mark each. Write your answers in the spaces provided. For questions which require units, give your answers in the units stated. [5 marks]

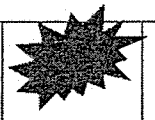
Q16. Find the value of $49.14 \div 7$

Ans : _____

Q17. Express 0.5% as a fraction in the simplest form.

Ans : _____

Q18. The table below shows the number of books read by each pupil in a class of 28 pupils. One of the numbers in the table is covered by an ink stain.

Number of books read by each pupil		12
Number of pupils	8	20

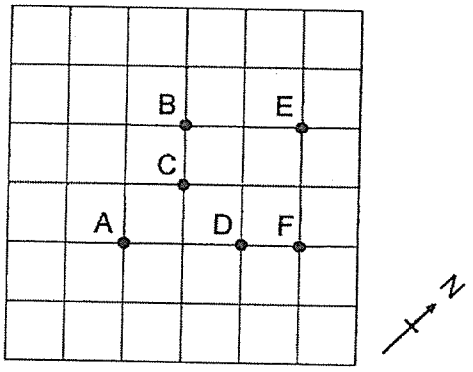
The average number of books read by the pupils in the class is 10.
What is the number covered by the ink stain?

Ans: _____

Q19. A bottle contains 1.05 litres of water. Wendy pours 300 ml of water from it into a cup. How much water is left in the bottle?

Ans: _____ml

Q20. In the square grid,



(a) Point _____ is West of Point D.

(b) Point _____ is South-West of Point E.

Ans: (a) Point _____

(b) Point _____

Questions **21** to **30** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Q21. What is the missing number in the box?

$\square \div 2 \times 30 + (200 - 90) = 320$

Ans: _____

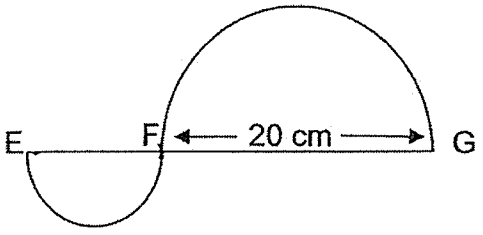
Q22. $\frac{3}{5}$ of Christy's spending is equal to $\frac{7}{12}$ of Kelvin's spending.

What is the ratio of Kelvin's spending to Christy's spending?

Ans:

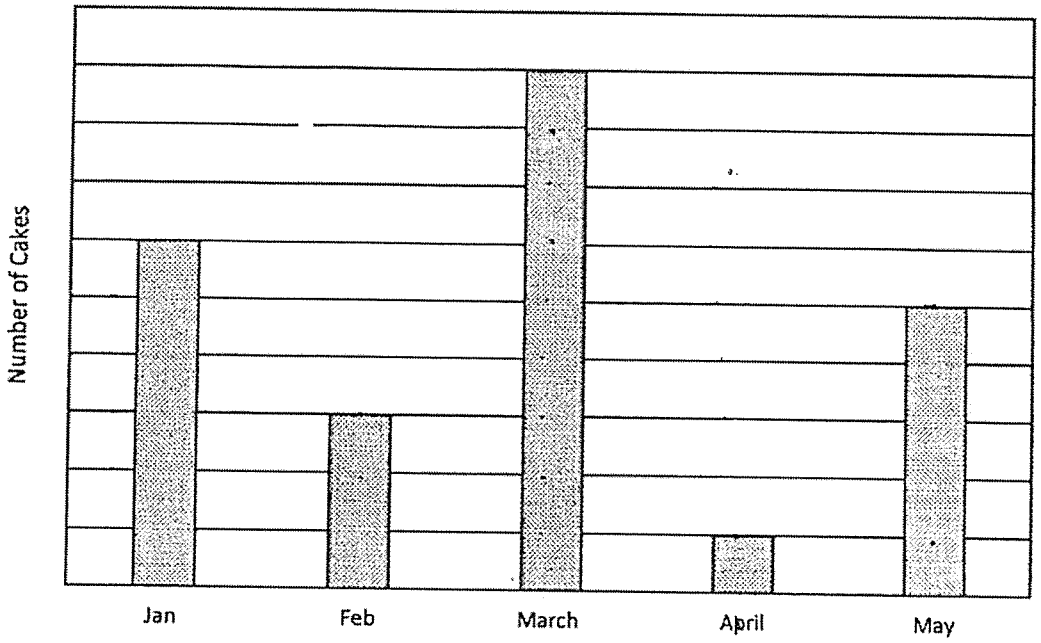
Q23. The figure below shows 2 semicircles. EG is 34 cm.

Find the perimeter of the figure. *Leave your answer in terms of π.*



Ans: _____ cm

Q24. The bar graph below shows the number of cakes produced by ABC Bakery in 5 months.

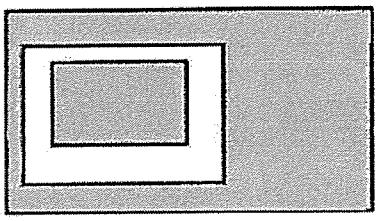


In which month did the bakery produce $\frac{1}{4}$ of the total number of cakes produced in the 5 months?

Ans: _____

Q25. Ming Lei drew three rectangles to form a figure. The areas of the rectangles were in the ratio 3 : 5 : 18. She then shaded some parts of the figure as shown. What fraction of the figure was shaded?

Express your answer in the simplest term.



Ans: _____

Q26. 16 students were assigned to line up in a row from one end to the other end of a corridor to welcome parents to a school event. They had to stand at an equal spacing of 1.2 m apart.

On the day of the event, 5 of the students did not turn up. As a result, the remaining students had to line up from one end to the other end of the corridor at a new equal spacing.

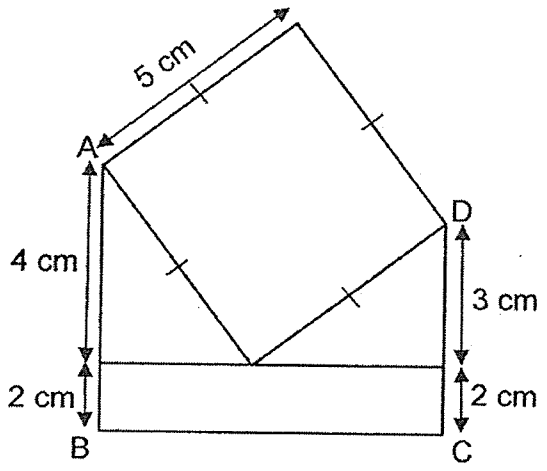
What was the new spacing between 2 students?

Ans: _____ cm

Q27. A school bus can carry 24 adults or 32 children.
There are already 9 adults and 11 children on the bus.
How many more children can the bus carry?

Ans: _____

Q28. The following figure, *not drawn to scale*, is made up of a square, a rectangle and 2 identical triangles. AB and CD are straight lines.
Find the area of the figure.



Ans: _____ cm^2

Q29. Mr Tao saved 40% of his salary. When he increased his savings by 20%, he would have $400 less to spend. How much was his salary?

Ans: $ _____

Q30. Nora bought a packet of milk for $0.85 and a banana muffin for $1.40. She gave the cashier a $5 note. She received her change all in coins. What is the least number of coins Nora would have received?

Ans: _____

- END OF BOOKLET B -

2021 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____ ( ) Date: 18 August 2021

Class: Primary 6 ( ) Time: 10.30 a.m. - 12.00 p.m.

Parent's Signature: _____

MATHEMATICS

PAPER 2

55

INSTRUCTIONS TO CANDIDATES

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Show your working clearly as marks are awarded for correct working.
6. You are allowed to use a calculator.

Questions **1** to **5** carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

1. Peter and James were usually given \$58 altogether for their weekly pocket money. As James needed money for new books next week, he asked for \$19 more. As a result, he would have $\frac{3}{4}$ as much money as Peter. How much was Peter's pocket money?

Ans: \$ _____

2. There were 34 red candies and 18 yellow candies in a jar. An equal number of red and yellow candies were removed from the jar. The ratio of the number of red candies to the number of yellow candies became 5 : 1. How many red candies were there in the end?

Ans: _____

3. Melissa is able to type 45 words per minute. She was tasked to type a document of 30 pages. Given that the average number of words on each page was 450 words, how many hours will she take to complete her task?

Ans: _____ h

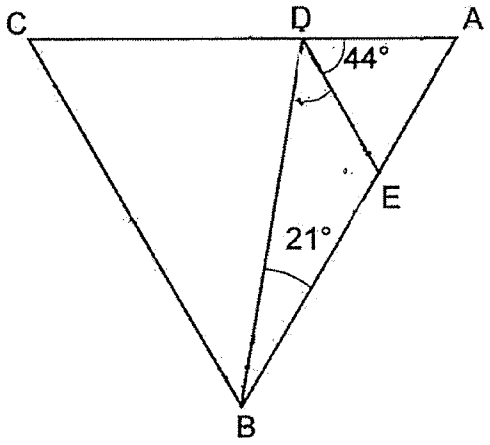
---

4. Mr Wong is 46 years old now. His son is n years younger than him. Find, *in terms of n*, their total age in 3 years' time.

Ans: years

---

5. In the figure below, ABC is an equilateral triangle with AB = BC = CA. Given $\angle ABD = 21°$ and $\angle ADE = 44°$, find $\angle BDE$.



Ans: _____ °

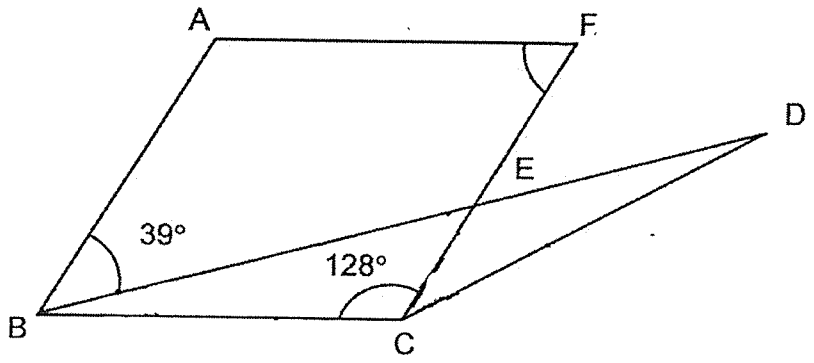
For questions **6** to **17**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in brackets [ ] at the end of each question or part-question. [45 marks]

---

6. In the figure below, not drawn to scale, ABCF is a rhombus and BCD is an isosceles triangle. $\angle ABE = 39°$ and $\angle BCF = 128°$.

(a) Find $\angle AFC$.

(b) Find $\angle FCD$.

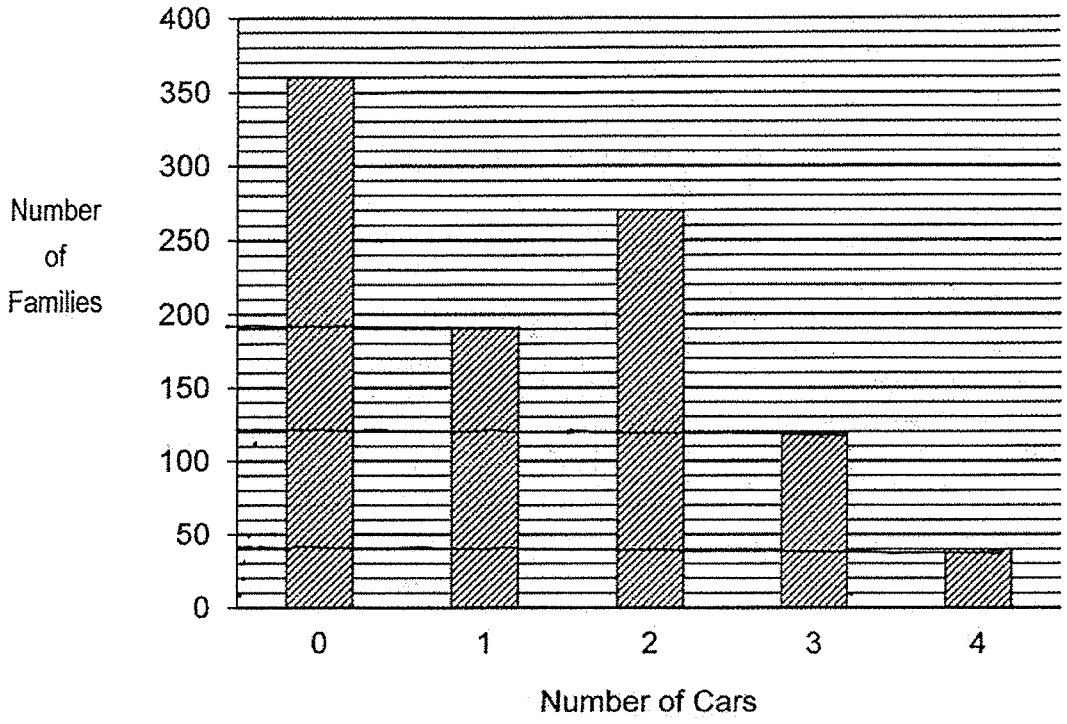


Ans: (a) $\angle AFC =$ _____ [1]

(b) $\angle FCD =$ _____ [2]

---

7. The bar graph shows the number of cars owned by families in a neighbourhood.



(a) How many families have less than 2 cars?

(b) From the families who own at least 3 cars, what fraction of them have 4 cars? *Give your answer in the simplest form.*

Ans: (a) _____ [1]

(b) _____ [2]

8. In a school, 60% of the boys and 40% of the girls wear spectacles.
The number of boys and girls who wear spectacles is the same.
For the boys and girls who do not wear spectacles, the number of girls more outnumbered the number of boys by 50. How many girls are there?

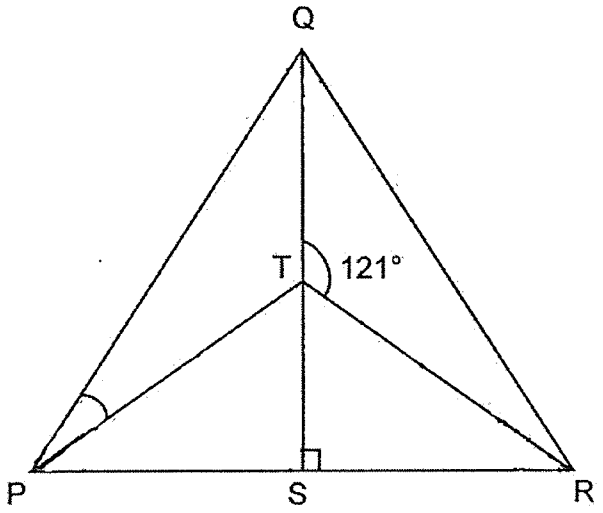
Ans: _____ [3]

9. In the diagram below, PQR is an equilateral triangle and PTR is an isosceles triangle. QS is a straight line. QS⊥ PR and ∠ QTR = 121°.

Find

(a) ∠ TRP

(b) ∠ QPT



Ans: (a) ∠ TRP = _____ [2]

(b) ∠ QPT = _____ [2]

10. At first, the number of strawberries that Roger and Darren had was in the ratio 5 : 7 respectively. Roger gave $\frac{1}{5}$ of his strawberries to his sister and Darren ate 35 of his strawberries. In the end, Roger had twice as many strawberries as Darren. Find the number of strawberries Darren had at first.

Ans: _____ [3]

11. In his demonstration on the art of tea making, John *first* poured some tea from a pot into an empty cup.

The amount of tea in the cup is $\frac{1}{4}$ of the amount of tea left in the pot.

For the *second* step, he poured 20 ml of milk into the cup.

Finally, he poured 50 ml of tea from the pot into the cup.

The final amount of liquids in the cup was $\frac{1}{3}$ of that left in the pot.

(a) Find the total amount of milk and tea added from the *second* and *final* steps.

(b) Find the original amount of tea in the pot.

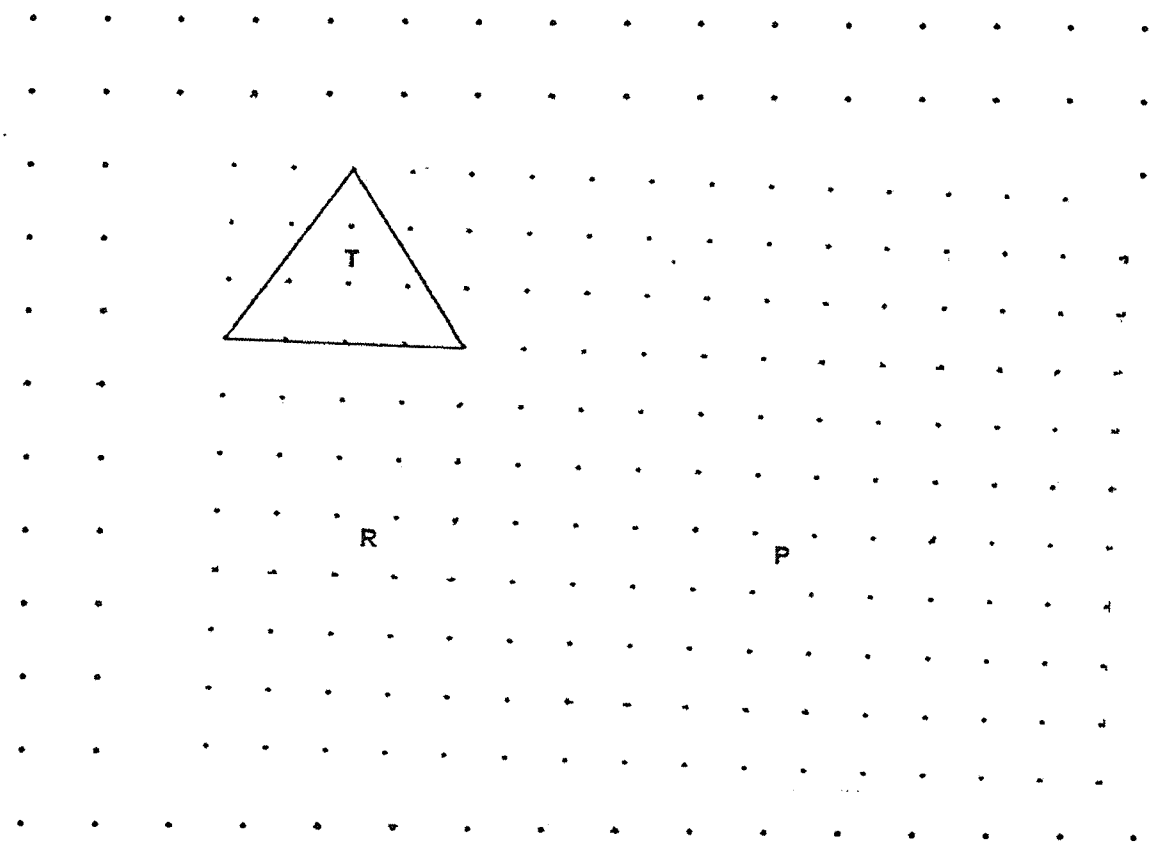
Ans: (a) _____ [1]

(b) _____ [3]

12. **Triangle T** is drawn by joining dots on the square grid below.

(a) Draw a right-angled triangle with the same area as Triangle T.
Label the triangle **R**. [1]

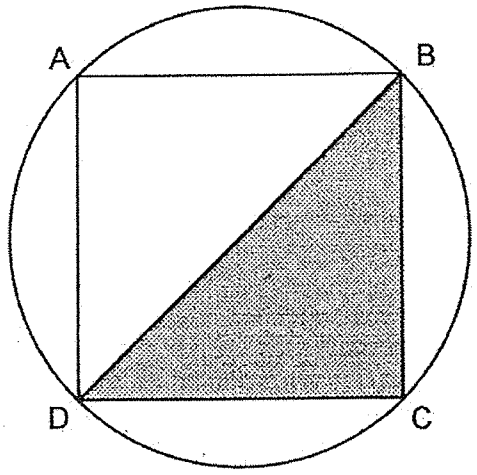
(b) Draw a parallelogram with twice the perimeter as Triangle T.
Label the parallelogram **P**. [2]



(c) [1]

The following statement is either true, false or not possible to tell. Put a ✓ in the correct column.	*True*	*False*	*Not possible to tell*
The area of P is twice the area of T.			

13. Study the following figure.



ABCD is a square and the area of the circle is 200.96 cm^2. (Take $\pi = 3.14$)

(a) Find the radius of the circle.

(b) Find the length of the arc AB.

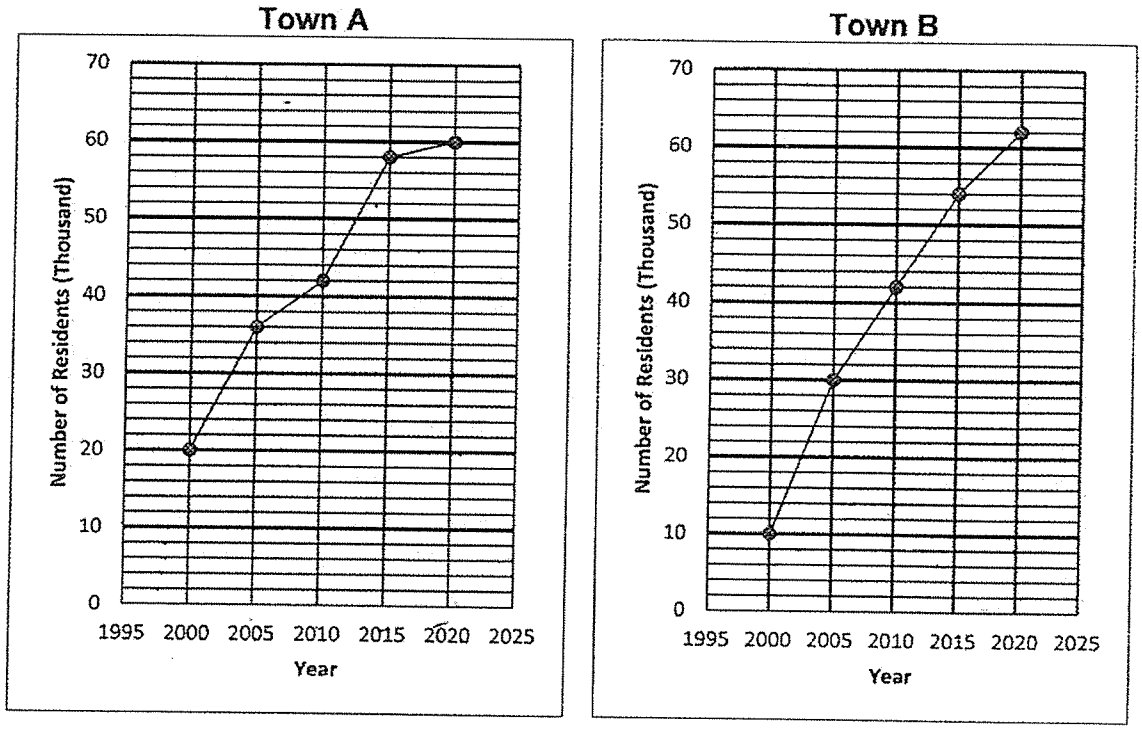
(c) Find the area of the shaded triangle BCD.

Ans: (a) _____ [2]

(b) _____ [1]

(c) _____ [1]

14. The line graph below shows the number of residents in Town A and Town B who are involved in a recycling project from Year 2000 to Year 2020.



(a) In which year(s), were there more residents involved in the recycling project in Town B than in Town A?

(b) For Year 2025, the number of residents in Town A who are to be involved in the recycling project are expected to increase by 25%. Find the number of residents in Town A who are expected to be involved in Year 2025.

(c) What is the percentage increase in the number of residents in Town B who are involved in the recycling project from Year 2000 to Year 2020?

Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [2]

15. The total age of workers in a restaurant is 256 years.
The average age of the oldest worker and youngest worker is 41 years.
The average age of the rest of the workers is 29 years.
Find the total number of workers in the restaurant.

Ans: _____ [3]

16. Aaron uses circles and triangles to form figures that follow a pattern. The first four figures are shown below.

Figure 1

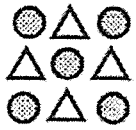


Figure 2

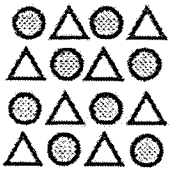


Figure 3

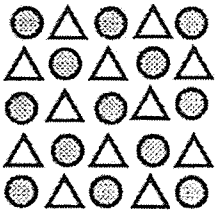


Figure 4

(a) Complete the table for **Figure 5** and **Figure 20**. [2]

Figure Number	1	2	3	4	5	...	20
Number of triangles	2	4	8	12			
Number of circles	2	5	8	13			221
Total number of triangles and circles	4	9	16	25	36		

(b) Find the Figure Number of the pattern that has a total of 729 triangles and circles.

(c) Find the Figure Number of the pattern with 840 triangles.

Ans: (b) Figure _____ [1]

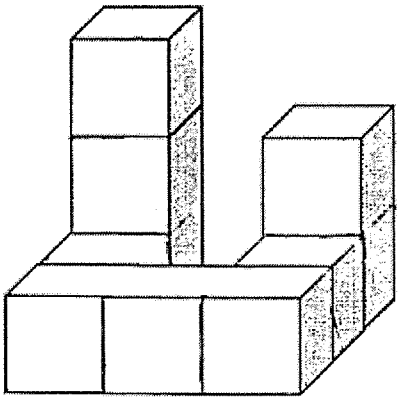
(c) Figure _____ [2]

17. The following solid figure was formed using ten *2-cm* cubes.
The exterior of the solid figure (including the base of the solid) was painted.

(a) Find the total painted surface area of the solid figure.

(b) If the 2-cm cubes were taken apart, how many faces of the cubes *were **not** painted* ?

(c) More cubes were added to form a big cube.
What is the least number of 2-cm cubes added ?



Ans: (a) _____ [2]

(b) _____ [1]

(c) _____ [2]

End of Paper 2

SCHOOL : TAO NAN PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2021 PRELIM

PAPER 1 BOOKLET A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	2	2	3	1	3	1	3	4	1

Q 11	Q12	Q13	Q14	Q15
3	3	3	4	1

PAPER 1 BOOKLET B

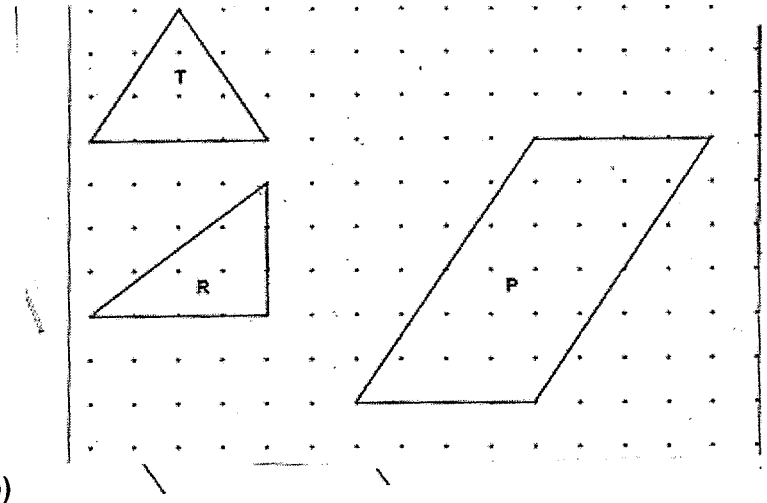
Q16)	7.02
Q17)	$\frac{1}{200}$
Q18)	28 x 10 = 280 12 x 20 = 240 280 – 240 = 40 40 ÷ 8 = 5
Q19)	1.05 l = 1050 ml 1050 – 300 = 750 ml
Q20)	a) C b) B
Q21)	14
Q22)	36 : 35
Q23)	$(14\pi + 34)cm$
Q24)	January
Q25)	$\frac{8}{9}$
Q26)	180cm
Q27)	24-9=15 20-11=9

Q28)	4 + 3 = 7 2 x 7 = 14 $\frac{1}{2} x 4 x 3 = 6$ 6 x 2 = 12 5 x 5 = 25 25 + 12 + 14 = 51
Q29)	5000
Q30)	5

PAPER 2

Q1)	58 + 19 = 77 77 ÷ 7 = 11 11 x 4 = $44
Q2)	5 – 1 = 4 5 + 1 = 6 4units = 16 1units = 16 1 unit = 16÷ 4 = 4 5 units = 5 x 4 = 20
Q3)	3500 ÷ 45 = 300 300 ÷ 60 = 5
Q4)	46 – n =46-n 4 – n + 46 + 6 = 46 + 46 + 6 – n = (98-n)
Q5)	∠DEA = 180° - 44° - 60° = 76° ∠DEB = 180° - 76° = 104° ∠BDE = 180° - 104° - 21° = 55°
Q6)	∠AFC = 180° - 128° = 52° ∠CBD = 52° - 39° = 13° ∠BCD = 180° - (13°+13°) = 154° ∠FCD = 154° - 128° = 26° a) 52° b) 26°
Q7)	190 + 360 = 550 120 + 40 = 160 $\frac{40}{160} = \frac{20}{80} = \frac{2}{8} = \frac{1}{4}$ a) 550

	b) $\frac{1}{4}$
Q8)	Boys 6 : 4 9 – 4 = 5 5u = 50 1u = 10 10 x 15 = 150 150 Girls 6 : 9
Q9)	$\angle PTS = 180° - 121°$ $= 59°$ $\angle TRP = 180° - 59° - 90°$ $= 31°$ $\angle TPR = \angle TRP$ $= 31°$ $\angle QPT = 60° - 30°$ $=29°$ a) $31°$ b) $29°$
Q10)	5 units = 35 1 unit = 7 7 units = 49 49 strawberries
Q11)	3 x (1unit + 70 ml) = 4units – 50 ml 3units + 210 ml = 4 units – 50 ml 1 unit = 260 5 units = 1300 ml a) 70 ml b) 1300 ml

Q12)	 a) b) c) False
Q13)	a) 8cm b) $\frac{1}{4} x\ 3.14\ x\ 16 = 12.56$ c) $\frac{1}{2}\ x\ 8\ x\ 16 = 64cm^2$
Q14)	a) 2020 b) $\frac{125}{100}\ x\ 60000 = 75000$ c) $\frac{5200}{10000}\ x\ 100\% = 520\%$
Q15)	41 x 2 = 82 256 – 82 = 174 174 ÷ 29 = 6 6 + 2 = 8
Q16)	a) 18 220 18 441 b) 26 c) 729 = 27 x 27 27 – 1= 26 840 + 841 = 1681 1681 = 41 x 41 41 – 1 = 40
Q17)	a) 4 x 42 = 168 b) 18 faces c) 17