METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

PRELIMINARY EXAMINATION 2019
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 2019

/20

This booklet consists of **8** 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)

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1. What does the digit 2 in 7.241 stand for?

(1) 2 ones
(2) 2 tenths
(3) 2 hundredths
(4) 2 thousandths

2. What is the value of 91 000 ÷ 700?

(1) 13
(2) 130
(3) 1300
(4) 13 000

3. Which of the following is the largest in value?

(1) 0.035
(2) 0.305
(3) 0.530
(4) 0.053

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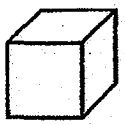
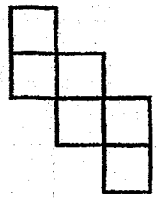
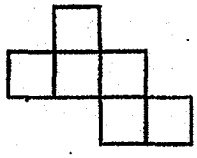
4. The figure below shows a cube.



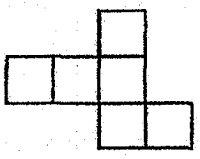
Which one of the following is **not** a net of the cube?



(1)



(2)



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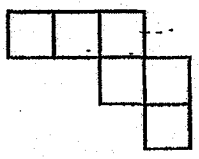

(4)

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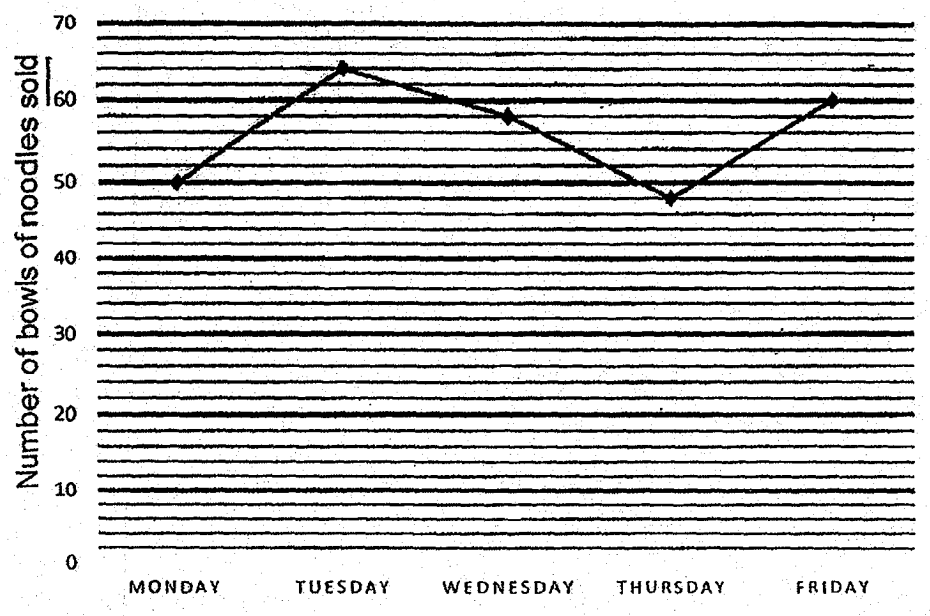
The graph shows the number of bowls of noodles sold at a stall over 5 days.



5. How many bowls of noodles were sold from Monday to Wednesday altogether?

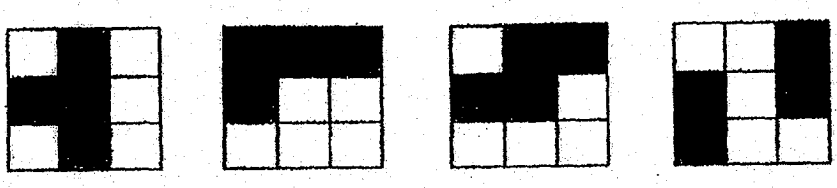
(1) 170

(2) 171

(3) 172

(4) 173

6. Each figure below is made up of nine squares. Four squares in each figure are shaded. Which one of the following figures is symmetric?



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

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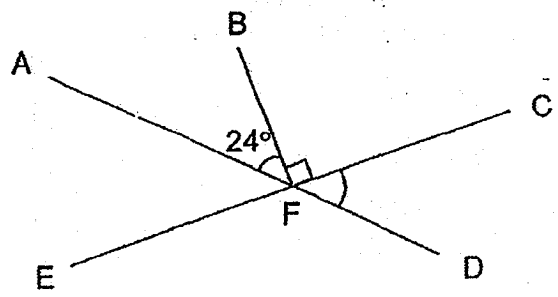
7. AFD and CFE are straight lines. Find ∠CFD.



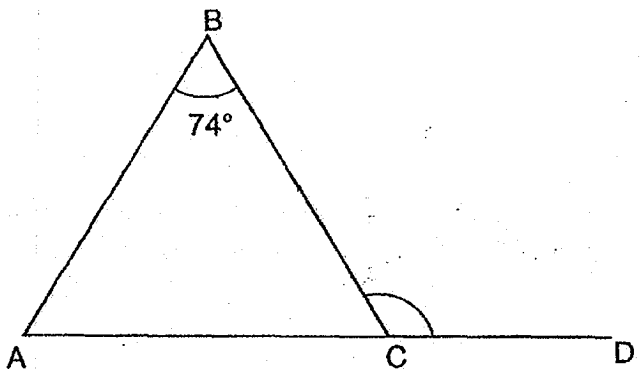
(1) 24°

(2) 66°

(3) 74°

(4) 76°

8. ABC is an isosceles triangle with AB = BC.
ACD is a straight line and ∠ABC = 74°. Find ∠BCD.



(1) 53°

(2) 74°

(3) 106°

(4) 127°

(Go on to the next page)

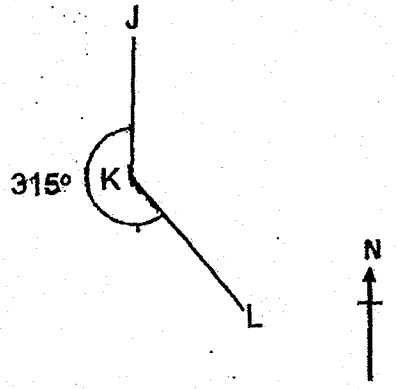
9. In the diagram, J, K and L are three points on the ground.
Point J is north of point K and ∠JKL is 315°.
In what direction is point L from point K?

(1) North-East

(2) North-West

(3) South-East

(4) South-West



10. A typist can type 70 words in 2 minutes. At this rate, how many words can she type in 30 minutes?

(1) 140

(2) 210

(3) 1050

(4) 1400

11. A bank gives 2% interest per year. John deposits $2000 in the bank.
How much interest will he receive at the end of one year?

(1) $400

(2) $40

(3) $0.40

(4) $4

(Go on to the next page)

12. Samy and Tom shared the total cost of a meal. Samy paid \$12 more than $\frac{2}{5}$ of the meal. Tom paid \$18. How much did the meal cost?

(1) \$15

(2) \$30

(3) \$50

(4) \$75

13. Selvi is x years old. Her father is 5 times as old as Selvi and 6 years older than Selvi's mother. How old is Selvi's mother?

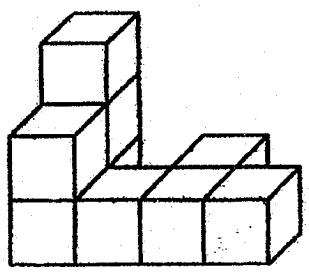
(1) $(5x - 6)$ years old

(2) $(5x - 30)$ years old

(3) $(5x + 6)$ years old

(4) $(5x + 11)$ years old

14. The figure below shows 9 identical cubes which are glued together to form a solid.



The whole solid, including the base, is then painted red. How many cubes have three of their faces painted red?

(1) 1

(2) 2

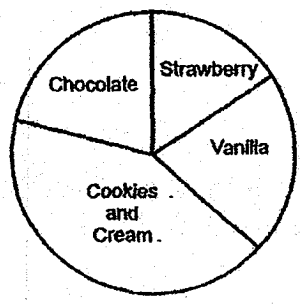
(3) 3

(4) 4

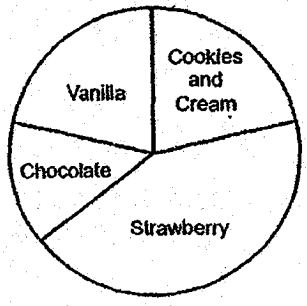
(Go on to the next page)

15. Some pupils were surveyed on their favourite ice-cream flavours. The same number of pupils liked vanilla and chocolate. More pupils liked strawberry than cookies and cream. Which one of the following pie charts represents the distribution of pupils?

(1)



(2)



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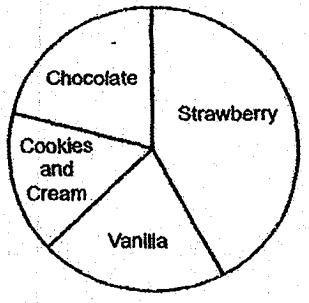
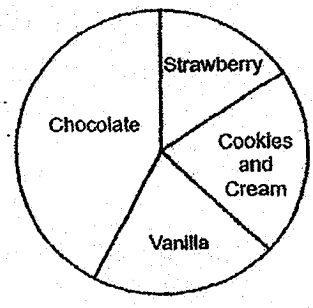


(4)



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METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

PRELIMINARY EXAMINATION 2019
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 2019

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 0.14×60

Ans: _____

17. Express 2.35 as a mixed number in the simplest form.

Ans: _____

18. Mary mixed 6 cups of water with 1 cup of syrup to make a drink. What fraction of the drink was made up of syrup?

Ans: _____

(Go on to the next page)

19. Edmund cycled for 50 minutes at a speed of 18 km/h. How far did he cycle?

Do not write in this space

Ans: _____ km

20. Find the value of $9f - \frac{11f}{2}$ when $f = 4$.

Ans: _____

(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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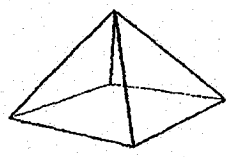
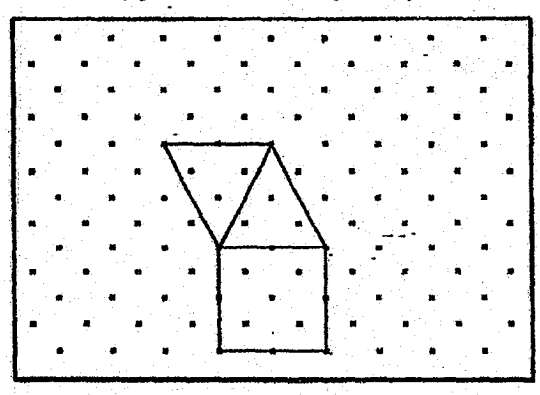
21. The figure below shows a pyramid.



Complete the net of the pyramid in the space provided in the box.



22. A total of 150 boys and girls took part in an Art competition. $\frac{1}{3}$ of the girls and $\frac{1}{6}$ of the boys were prize-winners. The number of boys and girls were not the same. Give your answer in the simplest form.

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) There were twice as many boys as girls who were prize winners.			
(b) $\frac{1}{2}$ of the participants were prize winners.			

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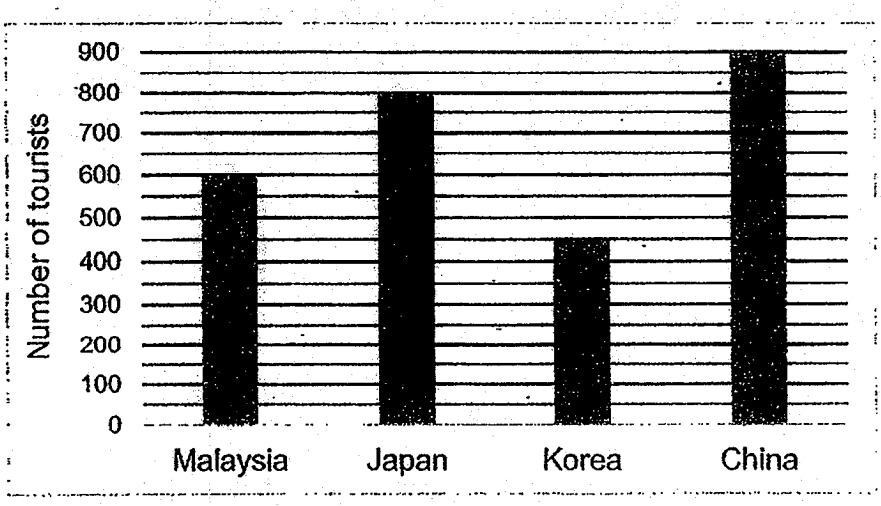
23. The bar graph shows the number of tourists in four different countries on a particular day.



Which country has $\frac{3}{4}$ as many tourists as Malaysia on that day?

Ans: _____

24. The table shows the number of hours spent on tuition by a group of 9 children in a day. What is their average number of hours spent on tuition each day? Give your answer in the simplest form.

Tuition hour per day	0	2	3	4
Number of children	1	4	3	1

Ans: _____ h

(Go on to the next page)

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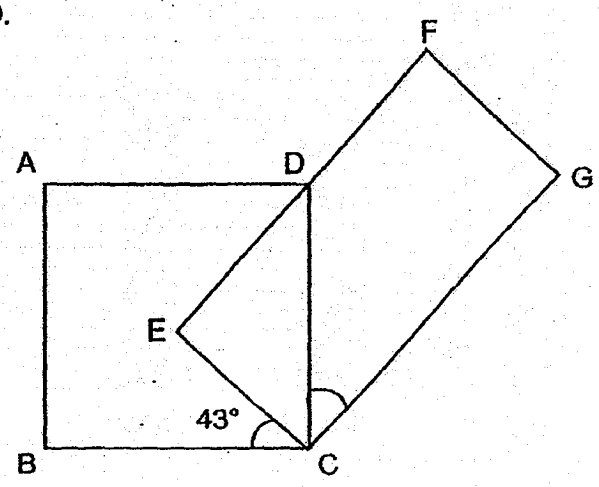
25. In the figure, ABCD is a square and EFGC is a rectangle. $\angle BCE = 43°$. Find $\angle GCD$.



Ans: _____°

26. The ratio of Julia's money to Mani's money is 2 : 3. The ratio of Mani's money to Kee Lin's money is 4 : 5. Kee Lin has $30. Find the total sum of money the three girls have.

Ans: $_____

(Go on to the next page)

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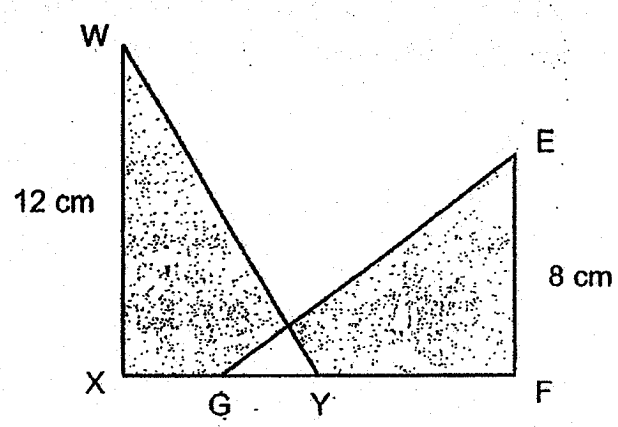
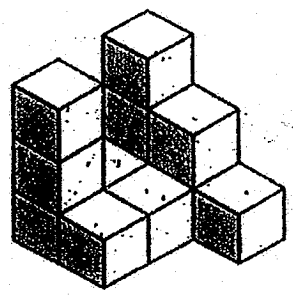
27. In the figure, WXY and EFG are identical triangles. The total area of the shaded parts is 80 cm^2. Find the area of the unshaded part.



Ans: _____ cm^2

28. The solid below is made up of 1-cm cubes. How many more cubes are needed to make a cube of sides 3 cm?



Ans: _____

(Go on to the next page)

29. Ali and Beng Huat had the same amount of money at first. After Ali spent $34, Beng Huat had thrice as much money as Ali. How much money did they have in total at first?

Do not write in this space

Ans : $_____

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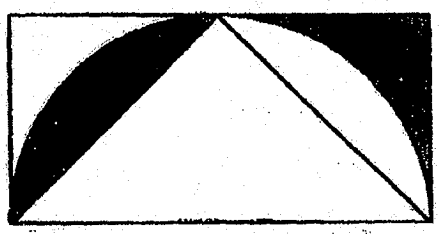
30. The diagram is made up of a rectangle, triangle and a semicircle. E is the midpoint of the length of the rectangle. The length of the rectangle is 14 cm. Find the area of the shaded region. Take $\pi = \frac{22}{7}$.



Ans : _____ cm^2

END OF PAPER

METHODIST GIRLS' SCHOOL (PRIMARY)

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PRELIMINARY EXAMINATION 2019
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 2019

/55

Parent's Signature: _____

This booklet consists of **14** 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 For every \$5 that Suzy saved, her father will contribute another \$0.50 to her savings. Suzy's father contributed a total of \$11. What was Suzy's total savings in the end?

Ans: \$ _____

2 What is the greatest number of circles, of radius 6 cm, that can be cut from a vanguard sheet measuring 100 cm by 50 cm?

Ans: _____

(Go on to the next page)

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3 A pencil case costs \$4 more than a sharpener. The total cost of 3 such pencil cases is \$$p$.

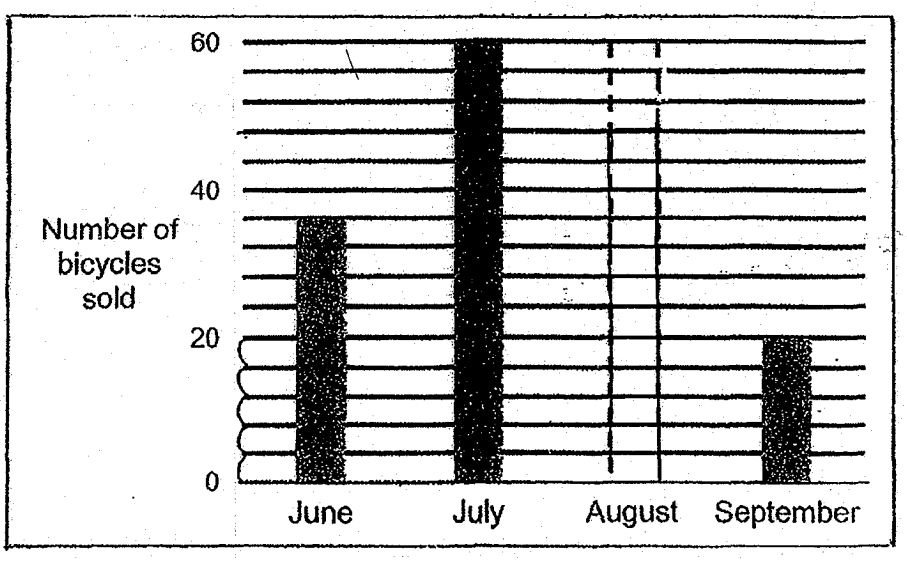
(a) Express the cost of 15 such pencil cases in terms of p.
(b) Express the cost of a sharpener in terms of p.

Ans: (a) \$ _____ [1]

(b) \$ _____ [1]

4 The bar graph shows the number of bicycles sold by a shop from June to September. The shop sold a total of 164 bicycles.

The number of bicycles sold in August is not shown in the graph. Draw the bar representing the number of bicycles sold in August.



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

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

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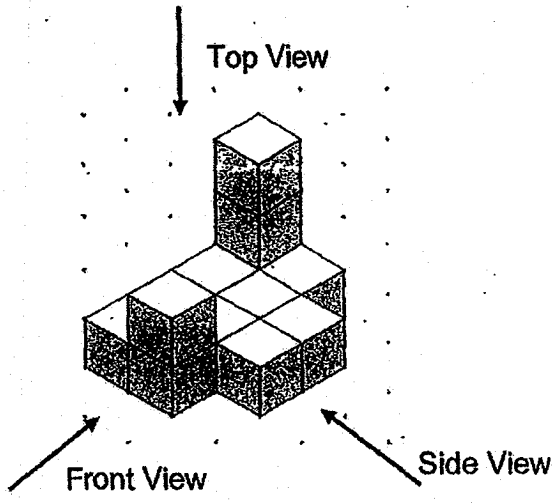
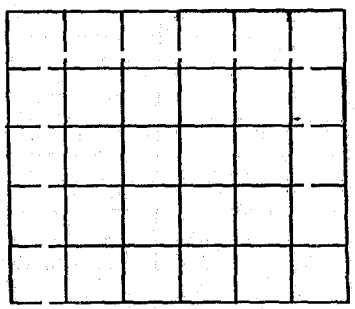
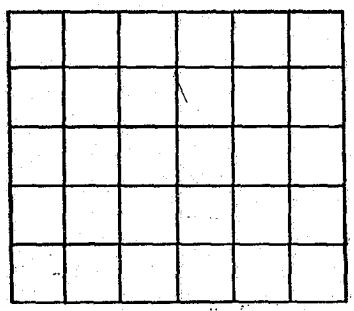


Front View



Side View



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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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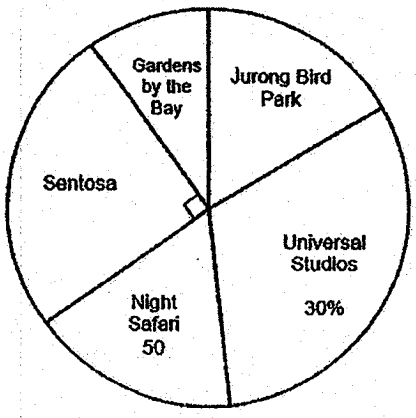
6 A survey on the places of interest that the pupils in Primary 2 liked was carried out. The results of the survey are shown in the pie chart below.



$\frac{1}{6}$ of the pupils surveyed liked the Jurong Bird Park. The number of pupils who liked the Night Safari was the same as the number of pupils who liked the Jurong Bird Park. 30% of the pupils liked Universal Studios.

(a) How many pupils took part in the survey?
(b) How many pupils liked Gardens by the Bay?

Ans: (a) _____ [1]

(b) _____ [2]

(Go on to the next page)

7 Betty and Cathy had 294 stickers altogether. Betty gave away $\frac{3}{8}$ of her stickers and Cathy gave away $\frac{2}{5}$ of her stickers. Both had same number of stickers left. How many stickers did Cathy give away?

Do not write in this space

Ans: _____ [4]

8 At 08 00, a lorry left Town A for Town B moving at a speed of 60 km/h. At 09 00, a car left Town A for Town B moving at a speed of 75 km/h. Both vehicles did not change their speeds throughout. What was the distance travelled by the car when it caught up with the lorry?

Ans: _____ [3]

(Go on to the next page)

9 A box of chicken wings is 15 kg heavier than a packet of nuggets. The total mass of 5 packets of nuggets and 6 boxes of chicken wings is 189 kg. What is the mass of a box of chicken wings?

Do not write in this space

Ans: _____ [3]

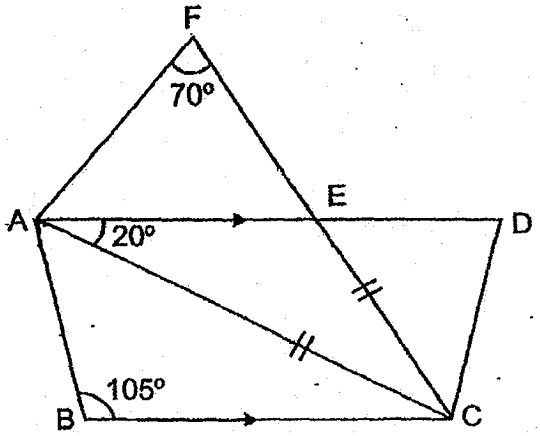
10 Shana has two rectangular boxes of difference sizes. The length, breadth and height of the larger box is twice those of the smaller box. She packed 16 identical cubes exactly into the smaller box. How many such cubes can be packed exactly into the larger box?

Ans: _____ [3]

(Go on to the next page)

11 In the figure, ABCD is a trapezium and ACF is an isosceles triangle. AED and CEF are straight lines. $\angle AFC = 70°$, $\angle EAC = 20°$ and $\angle ABC = 105°$.

(a) Find $\angle BAC$.
(b) Find $\angle AEC$.



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Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

12 A shop sells shorts in five different sizes. The table shows the number of shorts sold in January.

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Size of shorts	Number of shorts
XS	84
S	152
M	?
L	81
XL	65

(a) 14% of the shorts sold were in size XS. How many of the shorts sold were in size M?

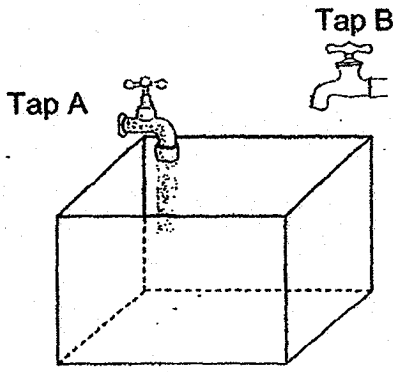
(b) In February, there was a 20% decrease in the number of shorts sold in size XL. How many fewer XL shorts were sold in February?

Ans: (a) _____ [2]

(b) _____ [1]

(Go on to the next page)

13 Tap A and Tap B can fill a tank at a rate of 3 ℓ per minute and 5 ℓ per minute respectively. At first, only Tap A was turned on. When the tank was $\frac{1}{4}$ - filled with water, Tap B was then turned on. Six minutes later, the tank was $\frac{7}{8}$ - filled with water. How much water was there in the tank just before Tap B was turned on?



Ans: _____ [4]

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(Go on to the next page)

14 In the figure below, ABCD is a parallelogram.

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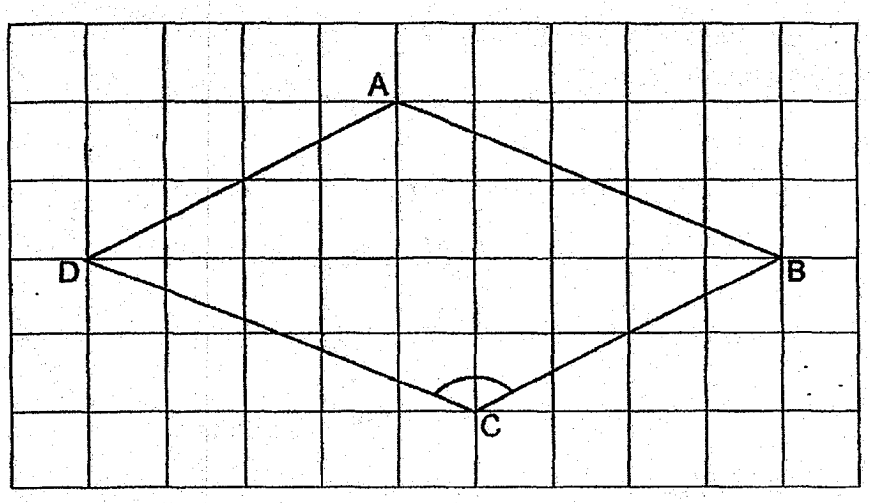


(a) Draw a line AE perpendicular to DC. [1]
(b) Measure ∠BCD.
(c) Name the shape formed by figure ABCE.
(d) Name a pair of parallel lines.

Ans: (b) _____ [1]

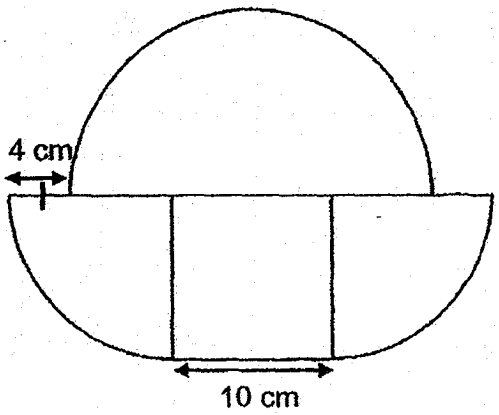
(c) _____ [1]

(d) _____ [1]

(Go on to the next page)

15 The figure below is made up of a square, 2 identical quarter circles and a semicircle. The sides of the square measure 10 cm. Take $\pi = 3.14$.

(a) Find the perimeter of the figure.
(b) Find the area of the figure.



Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

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16 In a singing competition, the ratio of male participants to female participants was 1 : 5 at first. After the first round of competition, 25% of the male participants and 60% of the female participants did not make it to the second round. In the second round, there were 15 more female participants than male participants.

(a) What was the ratio of the number of female participants to the number of male participants in the second round?

(b) How many more female than male participants were there at first?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [3]

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17 Mrs Lim bought an equal number of Brand X and Brand Y correction tapes. She spent $180 more on Brand Y correction tapes.

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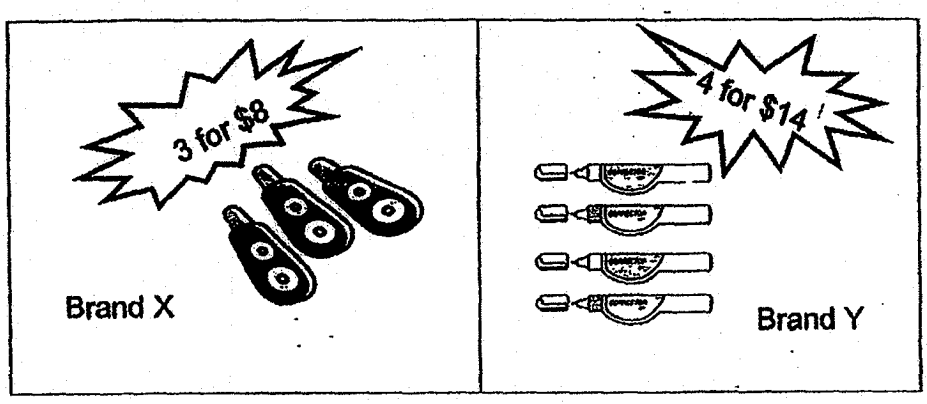


(a) How many correction tapes did she buy altogether?

(b) How much did she spend on the Brand X correction tapes?

Ans: (a) _____ [3]

(b) _____ [2]

End of Paper

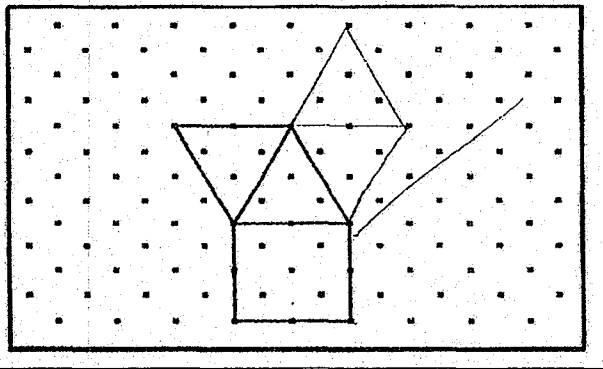
SCHOOL : MGS PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2019 PERLIM

PAPER 1 BOOKLET A

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

Q 11	Q12	Q13	Q14	Q15
2	3	1	3	3

PAPER 1 BOOKLET B

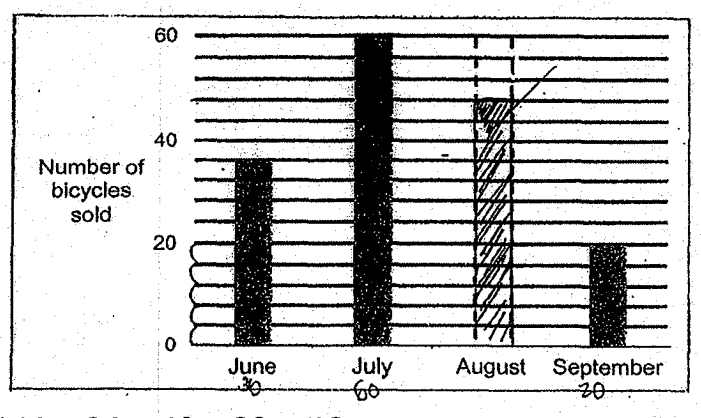
Q16)	0.14 x10=1.4 1.4 x 6 = 8.4
Q17)	$2.35 = 2\frac{35}{100} = 2\frac{7}{20}$
Q18)	$\frac{1}{7}$
Q19)	50min→ $\frac{50}{60}$ h= $\frac{5}{6}$ $18 \times \frac{5}{6} = 15$
Q20)	$9 \times 4 = 36$ $36 - \frac{44}{2} = 36 - 22 = 14$
Q21)	

Q22)	a)Not possible to tell b)False
Q23)	Korea
Q24)	$2\frac{1}{3}$h
Q25)	90° – 43° = 47° 90° – 47° = 43°
Q26)	30 ÷ 15 = 2 2 x 35 = $70
Q27)	96 – 80 = 16 16 ÷ 2 = 8 cm²
Q28)	3 x 3 x 3 = 27 27 – 12 = 15
Q29)	34 ÷ 2 x 6 = $102
Q30)	$14 \times 7 = 98$ $14 \times 7 \times \frac{1}{2} = 49$ $98 - 49 = 49$ $49 \div 2 = 24.5cm^2$

PAPER 2

Q1)	$11 ÷ $0.50 = 22 22 x $5 = $110 $110 + $11 = $121
Q2)	100 ÷ 12 = 8 50 ÷ 12 = 4 8 x 4 = 32
Q3)	a)15 ÷3 = 5 5 x $p = $(5p) b)$\frac{p}{3} - 4 = (\frac{p}{3} - 4)$

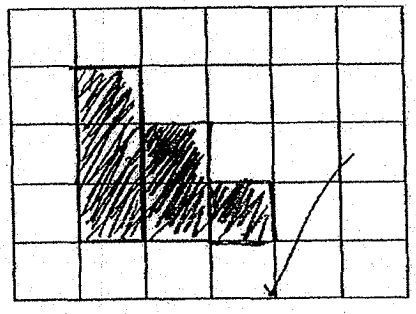
Q4)



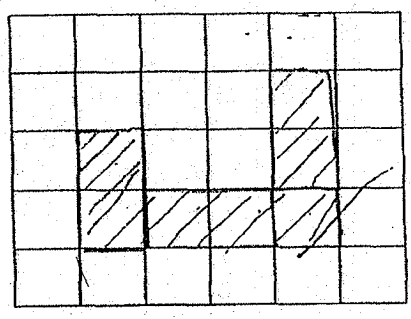
$164 - 36 - 60 - 20 = 48$

Q5)

Front View



Side View



Q6)

a) 50 x 6 = 300

b) $\frac{30}{100}$ x 300 = 90

$\frac{1}{4}$ x 300 = 75

300 – 75 – 90 – 50 – 50 = 35

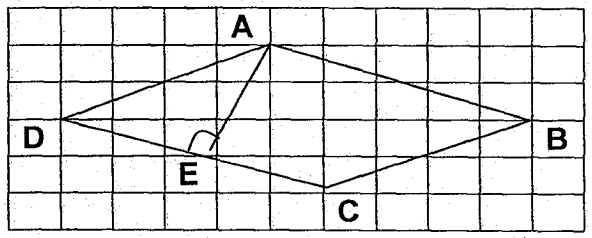
Q7)

	B	C		
Since	$\frac{5}{8}$	$\frac{3}{5}$	$\rightarrow$ $\frac{15}{24}$	$\frac{15}{25}$

24+ 25= 49

294 ÷ 49 = 6

6 x 10 = 60

Q8)	75 – 60 = 15 60 ÷ 15 = 4 75 x 4 = 300km
Q9)	15kg x 6 = 90kg 189kg – 90kg = 99kg 99kg ÷ (5+6) = 9kg 9kg + 15kg = 24kg
Q10)	6 x 6 x 6 = 216 12 x 12 x 12 = 1728 216→ 16 1728 →$\frac{1728}{216}$x 16 = 128
Q11)	a)180° – 20° – 105° = 55° b)70° – 20° = 50° 180° – 50° – 70° = 60° 180° – 60° = 120°
Q12)	a)84 ÷ 14 x 100 = 600 600 – 84 – 152 – 81 – 65 = 218 b)65 ÷ 100 x 80 = 52 65 – 52 = 13
Q13)	5L x 6 = 30L 3L x 6 = 18L } 6min $\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$ 18L+ 30L = 48L 48L ÷ 5 x 2 = 19.2L
Q14)	a) 
Q14)	b)131° c)Trapezium d)DC//AB

Q15)	a)Arc of quadrant = $2\pi r \times \frac{1}{4}$ $= 2 \times 3.14 \times 10 \times \frac{1}{4} = 15.7$ Arc of semicircle = $2\pi r \times \frac{1}{2}$ $= 2 \times 3.14 \times 11 \times \frac{1}{2} = 34.54$ $34.54 + 4 + 15.7 + 10 + 15.7 + 4 = 83.94$cm Quadrant b)$\pi r^2 = 3.14 \times 10 \times 10 \times \frac{1}{2} = 157$ square $10 \times 10 = 100$ Semicircle $\pi r^2 = 3.14 \times 11 \times 11 \times \frac{1}{2} = 189.97$ $189.97 + 100 + 157 = 446.97$ cm²
Q16)	a)$40u - 15u = 25u$ $15 \div 25 \times 40 = 24$ $15 \div 25 \times 15 = 9$ F : M 24 : 9 8 : 3 (ans) b)100u – 20u = 80u $15 \div 25 \times 80 = 48$
Q17)	a)\$42 – \$32 = \$10 \$180 ÷ \$10 = 18 12 x 18 = 216 12 x 18 = 216 216 x 2 = 432 b)216 ÷ 12 = 18 18 x 32 = \$576