

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.

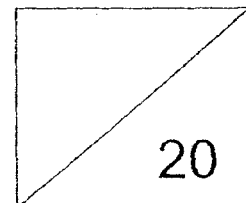
Shade your answers in the Optical Answer Sheet (OAS) provided.

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

Name: _____ ()

Class: Primary 6. _____

Date: 20 August 2019



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)

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

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

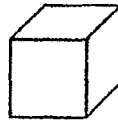
2. What is the value of $91\,000 \div 700$?

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

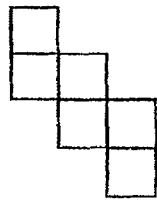
3. Which of the following is the largest in value?

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

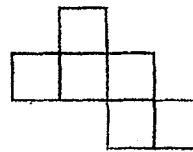
4. The figure below shows a cube.



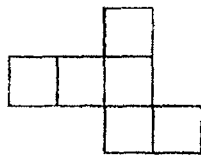
Which one of the following is **not** a net of the cube?



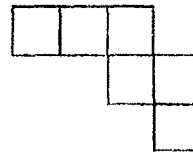
(1)



(2)

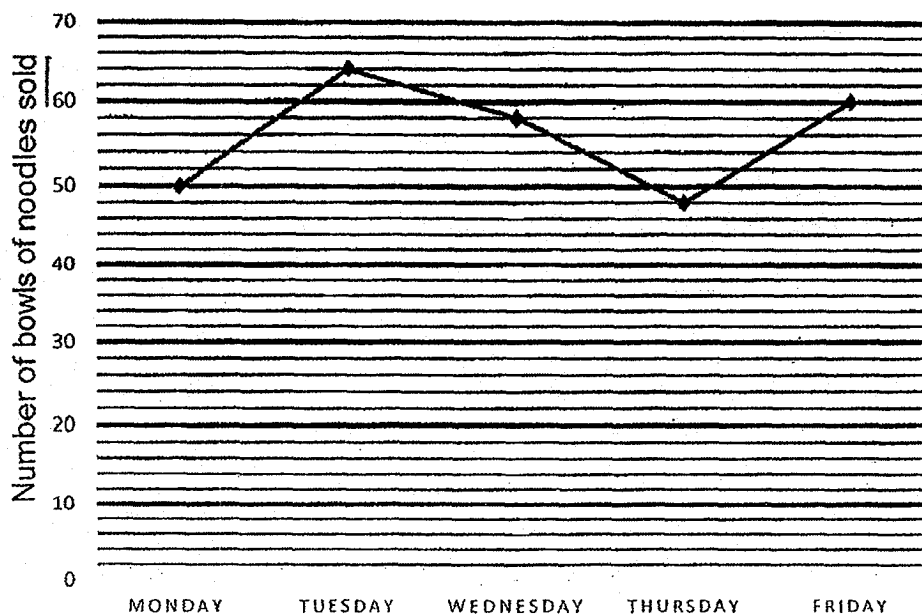


(3)



(4)

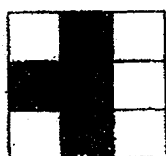
The graph shows the number of bowls of noodles sold at a stall over 5 days.



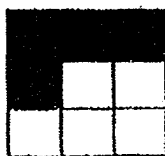
5. How many bowls of noodles were sold from Monday to Wednesday altogether?

- (1) 170
- (2) 171
- (3) 172
- (4) 173

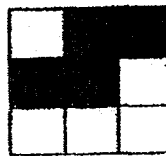
6. Each figure below is made up of nine squares. Four squares in each figure are shaded. Which one of the following figures is symmetric?



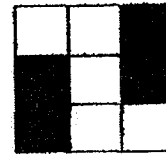
(1)



(2)

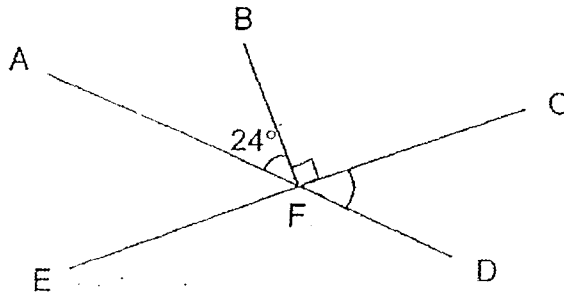


(3)



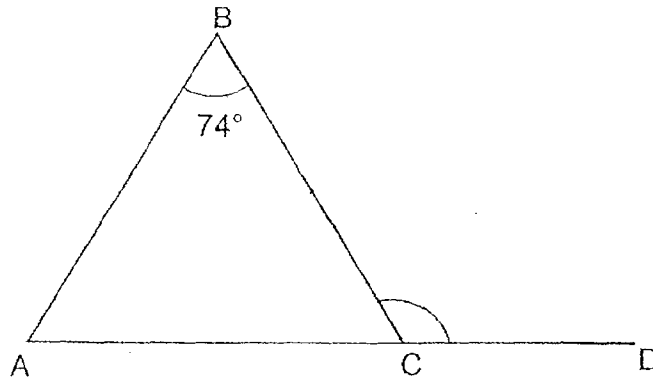
(4)

7. AFD and CFE are straight lines. Find $\angle CFD$.



- (1) 24°
- (2) 66°
- (3) 74°
- (4) 76°

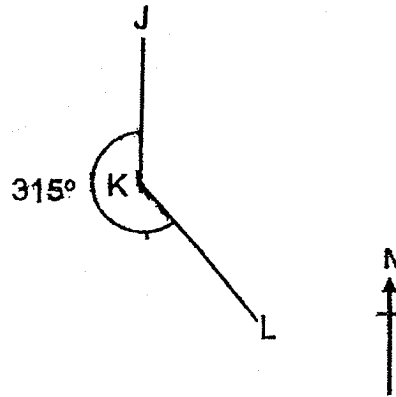
8. ABC is an isosceles triangle with $AB = BC$. ACD is a straight line and $\angle ABC = 74^\circ$. Find $\angle BCD$.



- (1) 53°
- (2) 74°
- (3) 106°
- (4) 127°

9. In the diagram, J, K and L are three points on the ground. Point J is north of point K and $\angle JKL$ 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

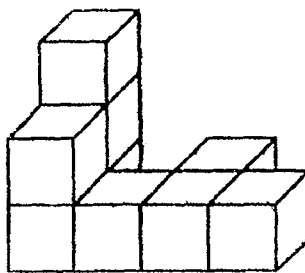
12. Samy and Tom shared the total cost of a meal. Samy paid \$12 more than $\frac{2}{5}$ of the meal. Tom paid \$18. How much did the meal cost?

- (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.

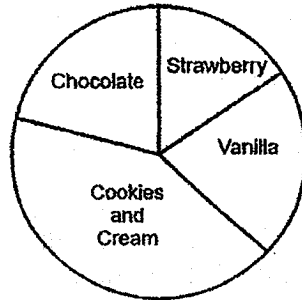


The whole solid, including the base, is then painted red. How many cubes have three of their faces painted red?

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

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?

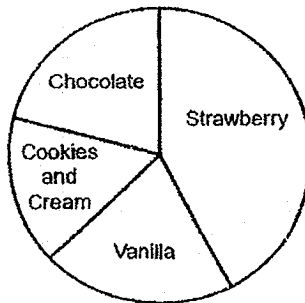
(1)



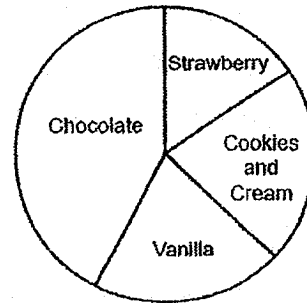
(2)



(3)



(4)



METHODIST GIRLS' SCHOOL (PRIMARY)

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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

Parent's Signature: _____

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

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: _____

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

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Ans: _____ km

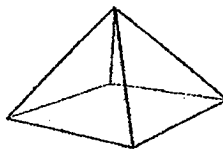
20. Find the value of $9f - \frac{11f}{2}$ when $f = 4$.

Ans: _____

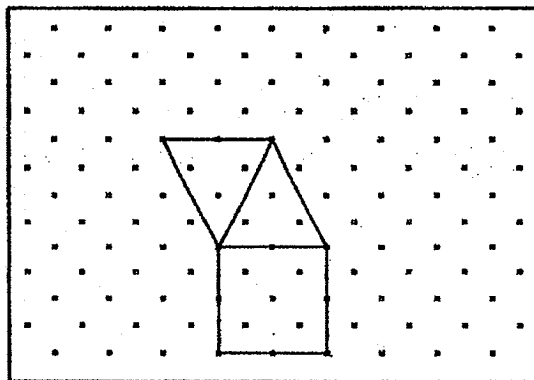
Questions 21 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (20 marks)

Do not write in this space

21. The 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.

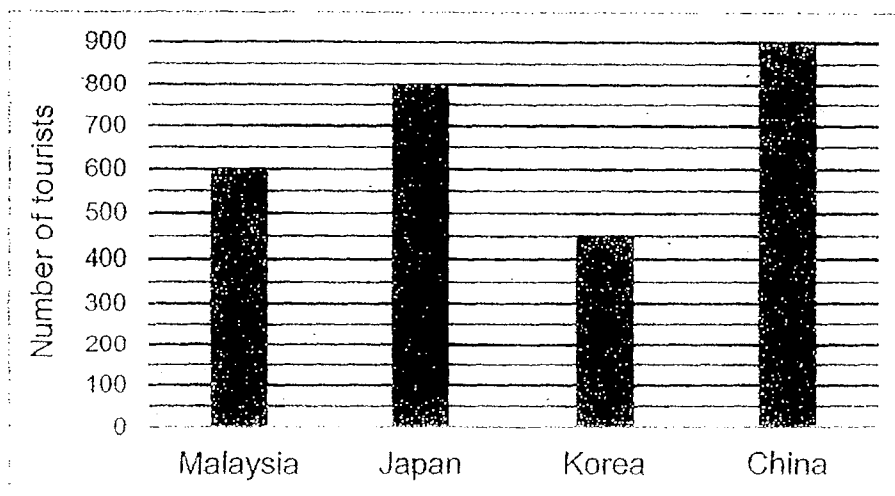
Each statement below is either true, false, or not possible to tell from the information given. For each statement, put a tick (✓) in the correct column.

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.			



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

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

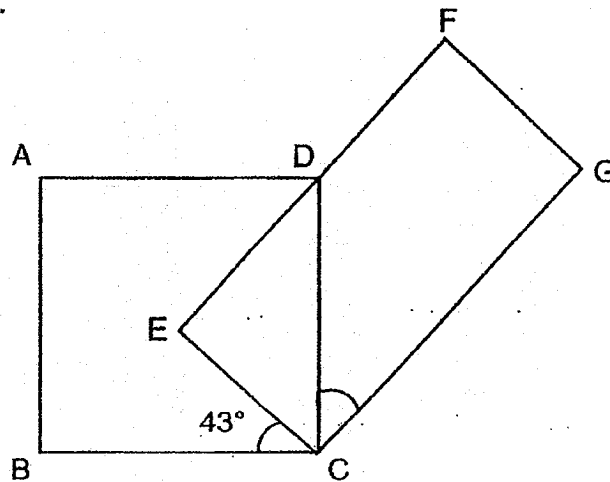
Ans: _____

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

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



Do not write
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Ans: _____ $^\circ$



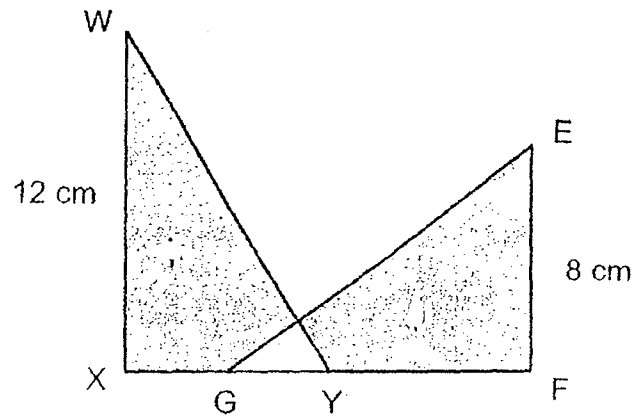
26. The ratio of Julia's money to Mani's money is 2 : 3. The ratio of Mani's money to Kee Lin's money is 4 : 5. Kee Lin has \$30. Find the total sum of money the three girls have.

Ans: \$ _____



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.

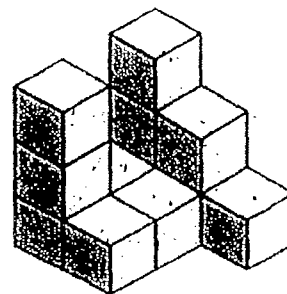
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Ans: _____ cm^2



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: _____



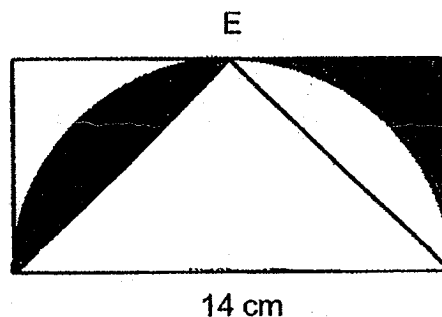
29. Ali and Beng Huat had the same amount of money at first. After Ali spent \$34, Beng Huat had thrice as much money as Ali. How much money did they have in total at first?

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Ans : \$ _____



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 : _____ cm²



END OF PAPER

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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.

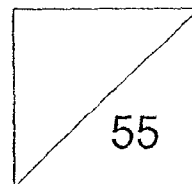
Write your answers in this booklet.

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

Name: _____ ()

Class: Primary 6. _____

Date: 20 August 2019



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
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- 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: _____

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

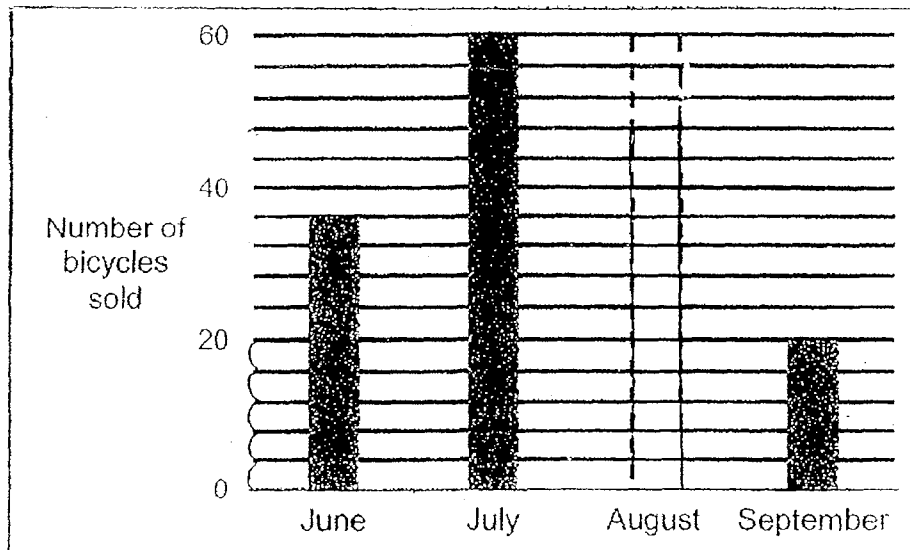
- (a) Express the cost of 15 such pencil cases in terms of p .
(b) Express the cost of a sharpener in terms of p .

Ans: (a) \$ _____ [1]

(b) \$ _____ [1]

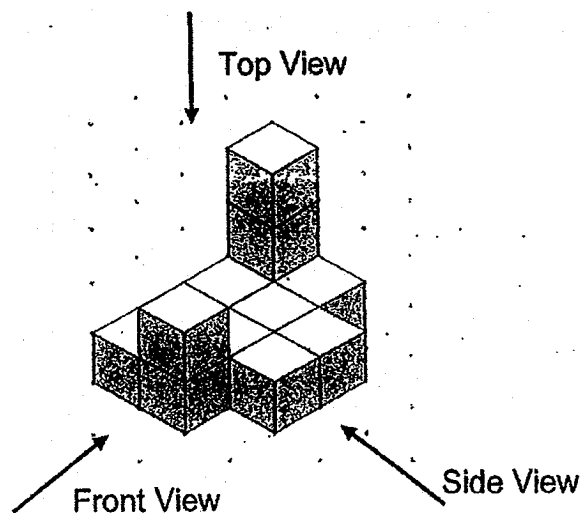
- 4 The bar graph shows the number of bicycles sold by a shop from June to September. The shop sold a total of 164 bicycles.

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

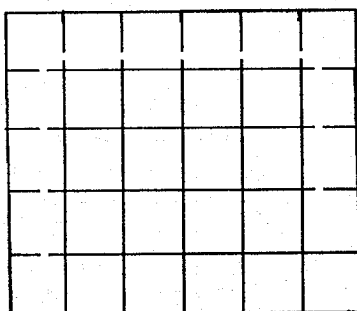


- 5 The solid below is made up of thirteen 1-cm cubes.
Draw the front view and the side view of the solid on the grids below.

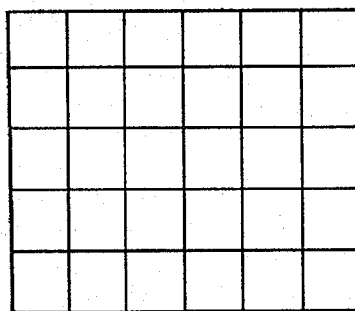
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Front View



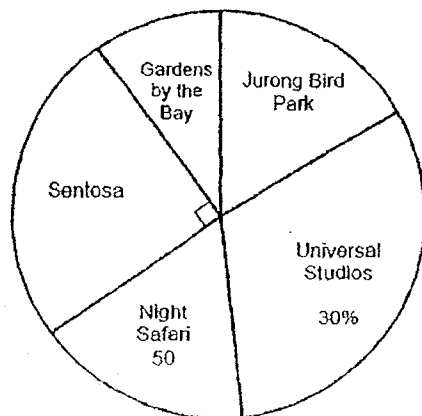
Side View



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]



- 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?

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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]

- 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?

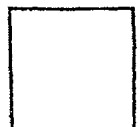
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Ans: _____ [3]



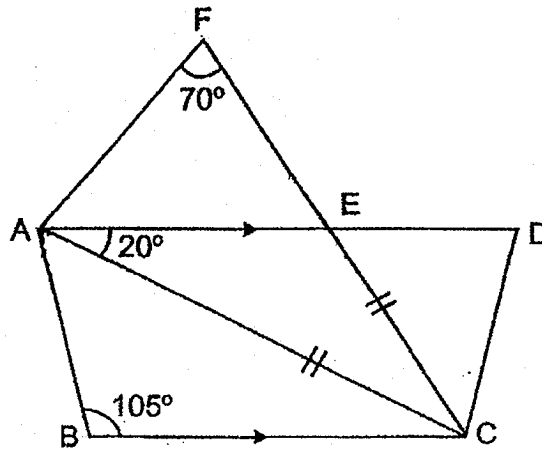
- 10 Shana has two rectangular boxes of difference sizes. The length, breadth and height of the larger box is twice those of the smaller box. She packed 16 identical cubes exactly into the smaller box. How many such cubes can be packed exactly into the larger box?

Ans: _____ [3]



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

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



Do not write
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Ans: (a) _____ [2]
(b) _____ [2]



- 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?

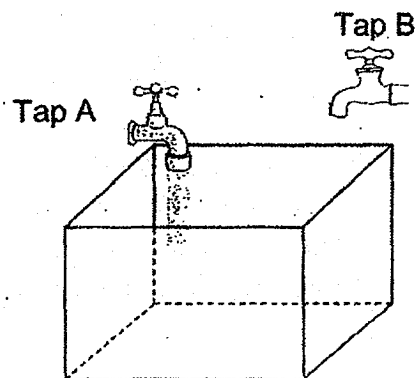
Ans: (a) _____ [2]

(b) _____ [1]



- 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?

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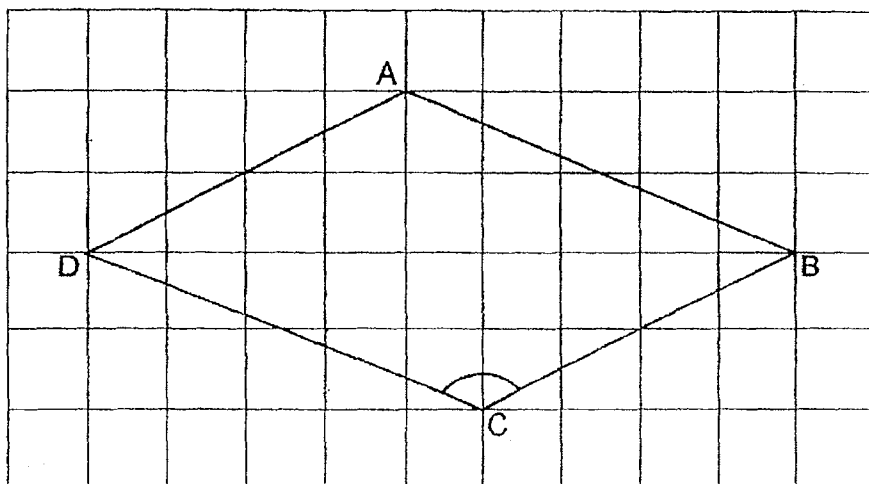


Ans: _____ [4]



14 In the figure below, ABCD is a parallelogram.

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

Ans: (b) _____ [1]

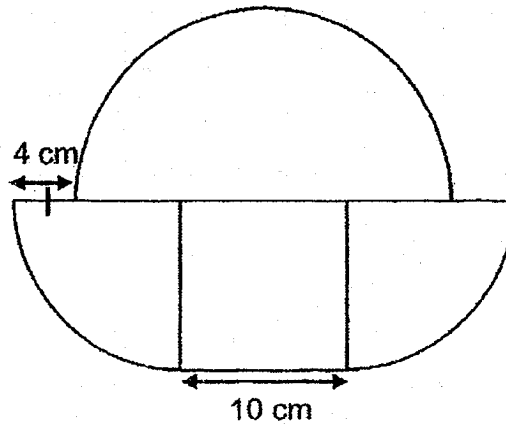
(c) _____ [1]

(d) _____ [1]



- 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.



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Ans: (a) _____ [2]
(b) _____ [2]



- 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?

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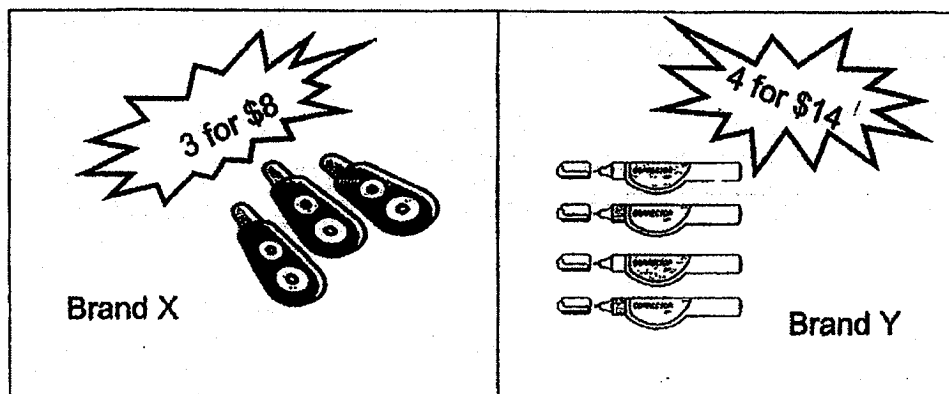
Ans: (a) _____ [2]

(b) _____ [3]



- 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]



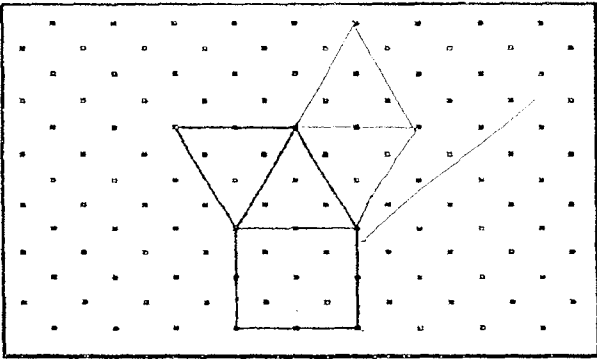
SCHOOL : MGS PRIMARY SCHOOL
 LEVEL : PRIMARY 6
 SUBJECT : MATH
 TERM : 2019 PRELIM

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

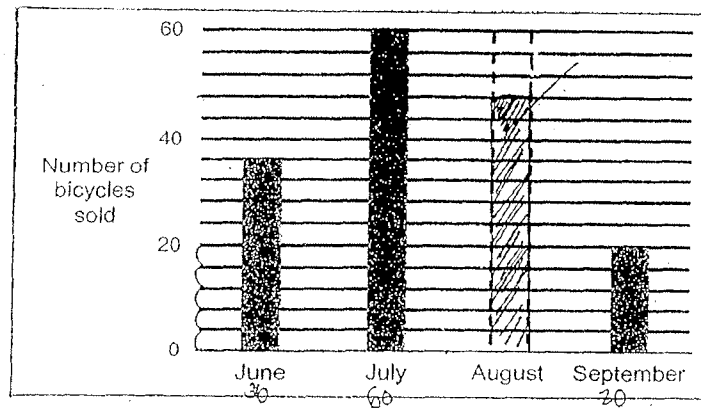
Q16)	$0.14 \times 10 = 1.4$ $1.4 \times 6 = 8.4$
Q17)	$2.35 = 2\frac{35}{100} = 2\frac{7}{20}$
Q18)	$\frac{1}{7}$
Q19)	$50\text{min} \rightarrow \frac{50}{60} \text{ h} = \frac{5}{6}$ $18 \times \frac{5}{6} = 15$
Q20)	$9 \times 4 = 36$ $36 - \frac{44}{2} = 36 - 22 = 14$
Q21)	

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

PAPER 2

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

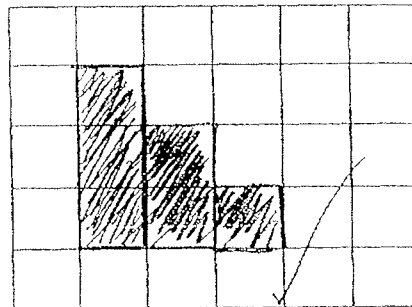
Q4)



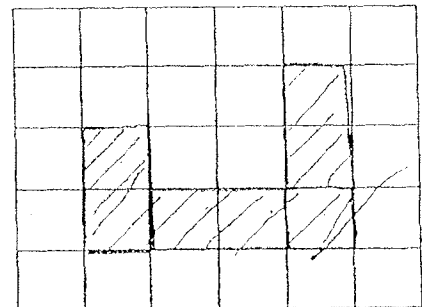
$$164 - 36 - 60 - 20 = 48$$

Q5)

Front View



Side View



Q6)

a) $50 \times 6 = 300$

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

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

$300 - 75 - 90 - 50 - 50 = 35$

Q7)

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

$24 + 25 = 49$

$294 \div 49 = 6$

$6 \times 10 = 60$

Q8)	$75 - 60 = 15$ $60 \div 15 = 4$ $75 \times 4 = 300\text{km}$
Q9)	$15\text{kg} \times 6 = 90\text{kg}$ $189\text{kg} - 90\text{kg} = 99\text{kg}$ $99\text{kg} \div (5+6) = 9\text{kg}$ $9\text{kg} + 15\text{kg} = 24\text{kg}$
Q10)	$6 \times 6 \times 6 = 216$ $12 \times 12 \times 12 = 1728$ $216 \rightarrow 16$ $1728 \rightarrow \frac{1728}{216} \times 16 = 128$
Q11)	a) $180^\circ - 20^\circ - 105^\circ = 55^\circ$ b) $70^\circ - 20^\circ = 50^\circ$ $180^\circ - 50^\circ - 70^\circ = 60^\circ$ $180^\circ - 60^\circ = 120^\circ$
Q12)	a) $84 \div 14 \times 100 = 600$ $600 - 84 - 152 - 81 - 65 = 218$ b) $65 \div 100 \times 80 = 52$ $65 - 52 = 13$
Q13)	$5\text{L} \times 6 = 30\text{L}$ $3\text{L} \times 6 = 18\text{L}$ } 6min $\frac{7}{8} - \frac{2}{8} = \frac{5}{8}$ $18\text{L} + 30\text{L} = 48\text{L}$ $48\text{L} \div 5 \times 2 = 19.2\text{L}$
Q14)	a) <div data-bbox="512 1514 1114 1746" data-label="Image"> </div>
Q14)	b) 131° c) Trapezium d) $DC \parallel AB$

Q15)	<p> 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 = $2\pi r \times \frac{1}{2}$ $= 2 \times 3.14 \times 11 \times \frac{1}{2} = 34.54$ $34.54 + 4 + 15.7 + 10 + 15.7 + 4 = 83.94\text{cm}$ </p> <p> Quadrant b) $\pi r^2 = 3.14 \times 10 \times 10 \times \frac{1}{2} = 157$ square $10 \times 10 = 100$ Semicircle $\pi r^2 = 3.14 \times 11 \times 11 \times \frac{1}{2} = 189.97$ $189.97 + 100 + 157 = 446.97 \text{ cm}^2$ </p>						
Q16)	<table border="0"> <tr> <td>a) $40u - 15u = 25u$</td> <td>F : M</td> </tr> <tr> <td>$15 \div 25 \times 40 = 24$</td> <td>24 : 9</td> </tr> <tr> <td>$15 \div 25 \times 15 = 9$</td> <td>8 : 3 (ans)</td> </tr> </table> <p> b) $100u - 20u = 80u$ $15 \div 25 \times 80 = 48$ </p>	a) $40u - 15u = 25u$	F : M	$15 \div 25 \times 40 = 24$	24 : 9	$15 \div 25 \times 15 = 9$	8 : 3 (ans)
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Q17)	<p> a) $\\$42 - \\$32 = \\$10$ $\\$180 \div \\$10 = 18$ $12 \times 18 = 216$ $12 \times 18 = 216$ $216 \times 2 = 432$ </p> <p> b) $216 \div 12 = 18$ $18 \times 32 = \\$576$ </p>						

