2019 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____( ) Date: 22 August 2019

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.

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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. Round 588 619 to the nearest thousand.

(1) 580 000
(2) 588 000
(3) 589 000
(4) 590 000

Q2. Which of the following is equal to $\frac{11}{4} \div \frac{1}{4}$?

(1) $\frac{11}{4} \times \frac{4}{1}$
(2) $\frac{11}{4} \div \frac{4}{1}$
(3) $\frac{4}{11} \times \frac{1}{4}$
(4) $\frac{4}{11} \div \frac{1}{4}$

Q3. Which of the following is the same as 20 kg 30 g?

(1) 2 030 g
(2) 2 300 g
(3) 20 030 g
(4) 20 300 g

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Q4. Express $10\frac{1}{20}$ as a decimal.

(1) 10.02
(2) 10.05
(3) 10.20
(4) 10.50

Q5. Which of the following is greater than $\frac{7}{8}$?

(1) $\frac{2}{3}$
(2) $\frac{4}{5}$
(3) $\frac{5}{6}$
(4) $\frac{8}{9}$

Q6. The diameter of a wheel is 56 cm. What is the circumference of the wheel? (Take $\pi = \frac{22}{7}$)

(1) 88 cm
(2) 176 cm
(3) 352 cm
(4) 784 cm

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Q7. Siti is facing north-east after turning 270° anti-clockwise.
What direction was she facing at first?

(1) West
(2) South
(3) South-east
(4) North-west

Q8. There are 35 students in a class. 15 of them are girls while the rest are boys.
What is the ratio of the number of boys to the number of girls in the class?

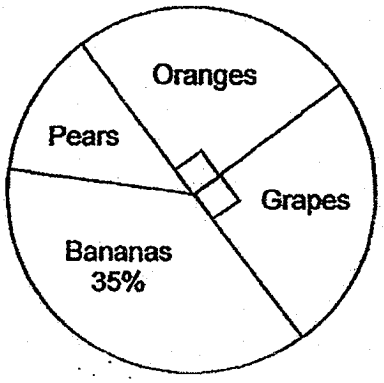
(1) 3 : 4
(2) 3 : 7
(3) 4 : 3
(4) 4 : 7

Q9. After spending 60% of his savings on some books, Peter has $400 left.
How much did he spend on the books?

(1) $160
(2) $240
(3) $600
(4) $1 000

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Q10. The pie chart represents the number of fruits sold by a fruit stall.
If 30 oranges were sold, how many pears were sold?



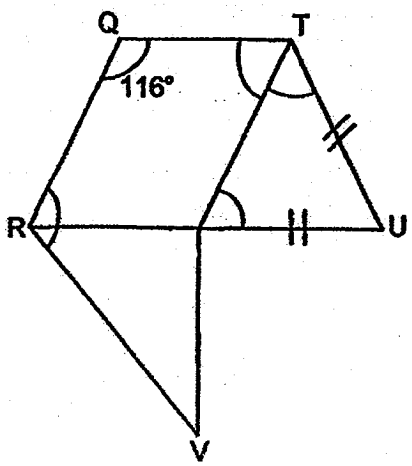
(1) 15
(2) 18
(3) 30
(4) 55

Q11. Siying and Anna were standing in a queue to enter a concert.
Siying was exactly in the middle of the queue.
Anna was the 43rd person after Siying and there are another 20 people after Anna. How many people were there in the queue?

(1) 63
(2) 65
(3) 126
(4) 127

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Q12. The following figure is made up of three shapes. QRST is a parallelogram. STU is an isosceles triangle. RSV is a right-angled triangle. RSU is a straight line. Which one of the following angles cannot be found?



(1) ∠STU
(2) ∠STQ
(3) ∠QRV
(4) ∠RST

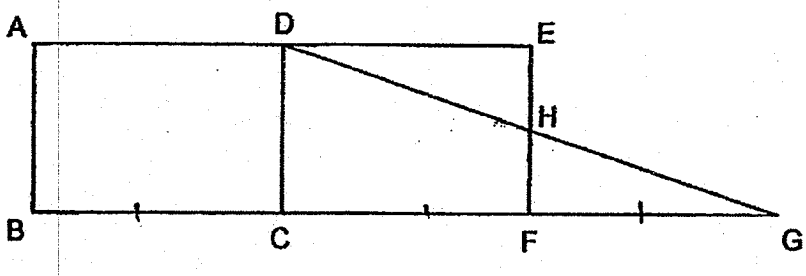
Q13. The first 14 numbers of a number pattern are given below.
How many number '8' are there in the first 130 numbers?

8	1	0	8	8	1	0	8	8	1	0	8	8	1
1st													14th

(1) 33
(2) 52
(3) 64
(4) 65

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Q14. The figure below shows 2 rectangles of the same size. BC = CF = FG. The area of Rectangle ABCD is 100 cm². What is the area of triangle FGH?



(1) 25 cm²
(2) 50 cm²
(3) 75 cm²
(4) 100 cm²

Q15. The average mass of Fruit A and Fruit B is 6 kg.
The mass of Fruit A mass is half the mass of Fruit B.
Find the mass of Fruit B.

(1) 8 kg
(2) 2 kg
(3) 3 kg
(4) 4 kg

- END OF BOOKLET A -

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2019 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____( ) Date: 22 August 2019

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.
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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. 25% of a number is 24. What is $\frac{1}{3}$ of the number?

Ans: _____

Q17. A car is travelling at a speed of 70 km/h.
How long will the car take to travel 35 km?

Ans: _____ min

Q18. Express $\frac{6}{7}$ as a percentage.

Ans: _____ %

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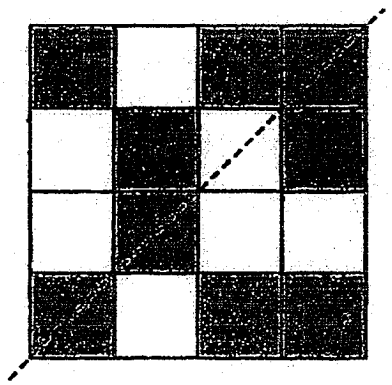
Q19. Arrange the following numbers in descending order.

0.107 , 10.07 , 1.07 , 10.70

_____ , _____ , _____ , _____

Greatest

Q20. Shade 2 more squares such that the figure below is symmetrical.



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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. Find the value of $98 - 24 \div 2 + (51 - 47)$

Ans: _____

Q22. Find the value of $\frac{m}{5} \times m + 3$ when $m = 15$.

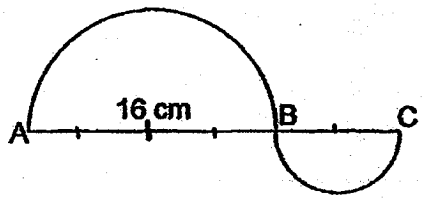
Ans: _____

Q23. Tom can paint a room in 2 hours while Ali can paint the same room in 3 hours. If Tom and Ali paint the room together, what fraction of the room can they paint in 1 hour?

Ans: _____

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Q24. The figure below shows 2 semicircles. AB is twice of BC.
Find the area of the figure. Leave your answer in terms of π.



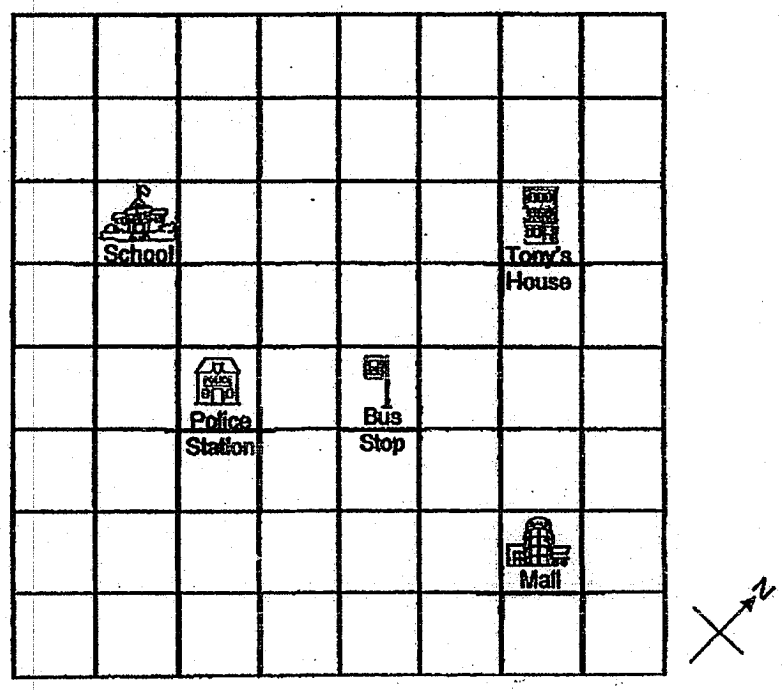
Ans: _____ cm^2

Q25. A rectangle has a breadth of $(2y + 1)$ cm long.
Its length is y cm longer than its breadth.
What is its perimeter in terms of y?

Ans: _____ cm

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Q26. Four landmarks of Tony's neighbourhood are shown in the square grid below.



a) In which direction is Tony's house from the school?

b) A clinic is to be built directly south of Tony's house and south west of the Mall. Mark on the grid with an 'X' to show where the clinic will be built.

Ans: a) _____

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Q27. Andy gave 30% of his money to his sister and spent 40% of the remainder. What percentage of his money was left?

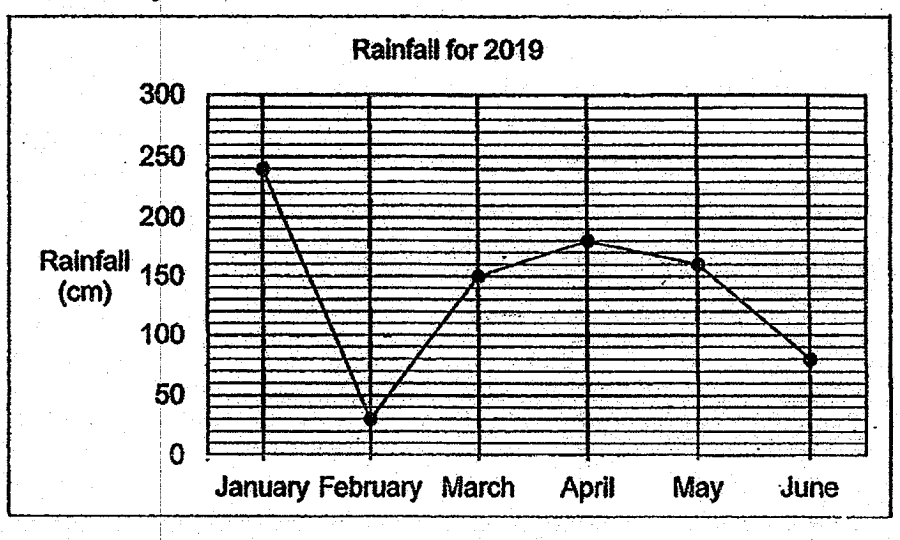
Ans: _____ %

Q28. A shopping mall provides a shuttle bus service from the mall to the MRT station every 50 minutes.
The first shuttle bus leaves the mall at 11 a.m. and there are 12 shuttle services each day.
At what time is the last shuttle service?

Ans: _____ p.m.

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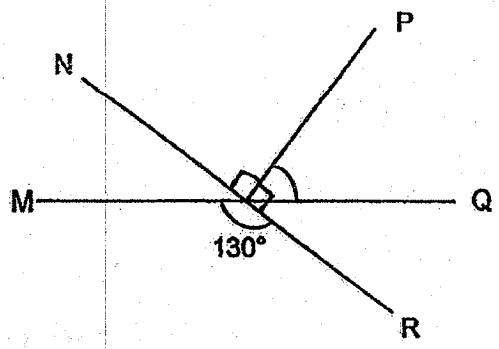
Q29. The graph below shows the amount of rainfall for Singapore in 2019 from January to June.



What was the average monthly rainfall from January to June?

Ans: _____ cm

Q30. In the figure below, not drawn to scale, MQ and NR are straight lines. ∠POR is a right-angle. Find ∠POQ.



Ans: _____ °

- END OF BOOKLET B -

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2019 PRIMARY 6 PRELIMINARY EXAMINATION

Name: _____( ) Date: 22 August 2019

Class: Primary 6 ( ) Time: 10.30 a.m. – 12.00 noon

Parent's Signature: _____

MATHEMATICS

PAPER 2

/ 55

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.
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6. You are allowed to use a calculator.

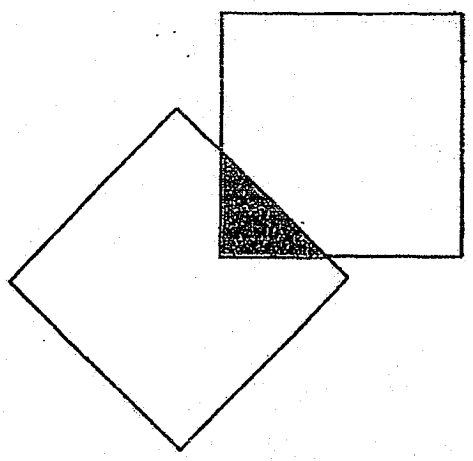
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Questions 1 to 5 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

Q1. How many common factors of 44 and 88 are there?

Ans: _____

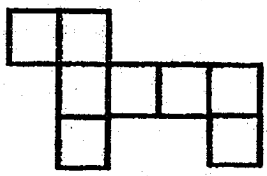
Q2. The figure below shows 2 identical squares. The shaded area is 15% of each square. Find the ratio of the shaded area to the area of the figure.



Ans: _____

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Q3. The following drawing shows an incorrect net of a cube.
Mark 'X' on the face(s) which is/are incorrect.



Q4. Mrs Tan is 4 times as old as her son. Her son is 8 years old.
In how many years' time would her son be $\frac{1}{3}$ of Mrs Tan's age?

Ans: _____ years' time

Q5. The figures are made up of squares. Study the pattern.
How many squares are there in **Figure 13**?



Figure 1 Figure 2 Figure 3

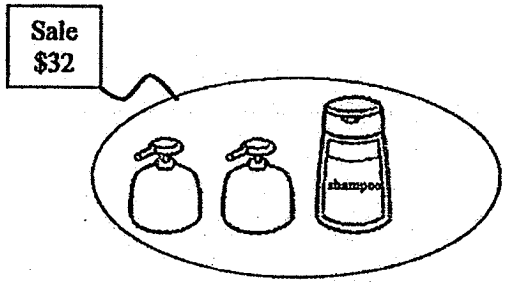
Ans: _____

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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)

Q6. A bottle of body wash costs $11 and a bottle of shampoo costs $18. During a sale, 2 bottles of body wash and a bottle of shampoo are sold at a discounted price of $32. What is the percentage discount given during the sale?



Ans: _____ [3]

Q7. A leaking tap leaks 2 mℓ of water in 1 second.

a) How many litres of water is wasted if the tap leaks for a whole day?

b) If the water costs 20 cents per litre, how much would the wasted water cost?

Ans: a) _____ [2]

b) _____ [1]

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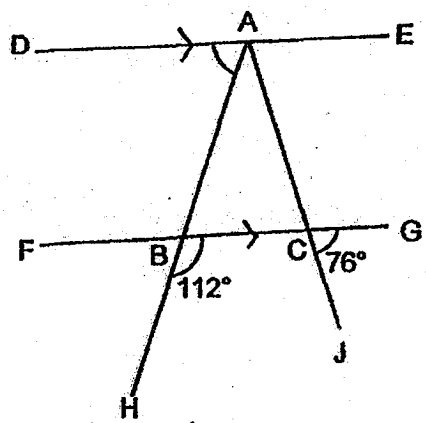
Q8. Mr Chan drove from Town M to Town P at a speed of 65 km/h.
Mr Lim drove 340 km from Town P to Town Q at a speed of 85 km/h.
If both drivers took the same time to drive to their respective destinations, what is the distance between Town M and Town P?

Ans: _____ [3]

Q9. DE and FG are parallel lines. ∠HBC is 112° and ∠GCJ is 76°.

a) Find ∠BAC.

b) Find ∠DAB.



Ans: a) _____ [2]

b) _____ [1]

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Q10. At a party, $\frac{1}{3}$ of the people were men. $\frac{3}{5}$ of the remainder were women and the rest were children. There are 55 adults. How many children were at the party?

Ans: _____ [3]

Q11. At a concert, there were 402 people in the audience.
A child's ticket costs half as much as the cost of an adult ticket.
An adult ticket costs $58.
A total of $17 690 was collected from all the tickets sold.

a) Find the cost of a child's ticket.

b) How many children were in the audience?

Ans: a) _____ [1]

b) _____ [3]

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Q12. Company A and Company B sent their recyclable waste for recycling in the quantities shown in the table below.

	Plastic (kg)	Paper (kg)	Glass (kg)
Company A	90	75	56
Company B	100	50	84

Both companies were paid for their recyclable waste according to the charges as shown in the table below.

Recyclable	Price per kg
Plastic	$0.30
Paper	$0.80
Glass	$1.00

a) Which Company, A or B, received more money for their recycling efforts? How much more?

b) Study the above information carefully.

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.

		True	False	Not Possible to Tell
(i)	Company A collected more money from recycling plastic waste than glass waste.			
(ii)	Company A collected 50% more paper waste than Company B.			

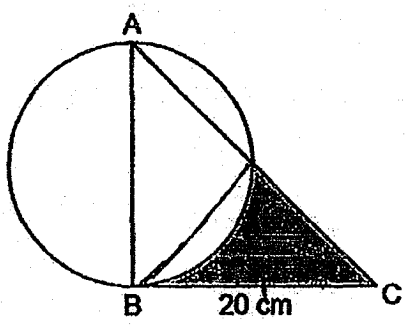
Ans: a) Company _____ [1]

Amount: _____ [1]

b) *(tick your answers)* [2]

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Q13. The figure shows a circle and a right-angled isosceles triangle.
AB = BC = 20 cm. Find the shaded area. (Take $\pi = 3.14$)



Ans: _____ [4]

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Q14. The average mass of Ahmad, Brian, Caili and Devi is 38 kg.
The average mass of Ahmad, Brian and Caili is 37 kg while the total mass of Caili and Devi is 77 kg.

a) Find Caili's mass.

b) Brian and Devi have the same mass. Find Ahmad's mass.

Ans: a) _____ [2]

b) _____ [2]

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Q15. A bakery baked buns and cakes in the morning in the ratio 4 : 1.
After selling 50 buns and 10 cakes in the afternoon, the ratio of the number of buns to the number of cakes left became 3 : 1.

a) Find the number of buns that the bakery baked in the morning.

b) Find the number of cakes left.

Ans: a) _____ [3]

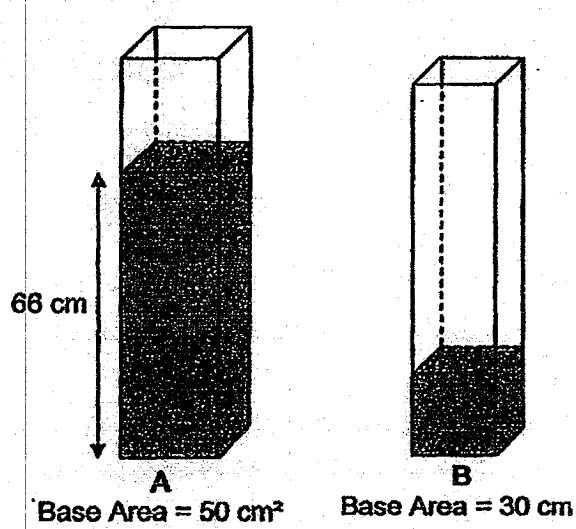
b) _____ [1]

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Q16. A and B are two rectangular containers. At first, the water level in Container A and B is as shown. The amount of water in Container A is 5 times that of the water in Container B. Then Keith poured some water from Container A into Container B until the water level in both containers are of the same height.

a) Find the volume of water in Container B.

b) Find the increase in water level of Container B.



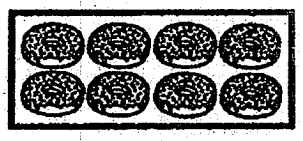
Ans: a) _____ [1]

b) _____ [4]

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Q17. Doughnuts and cupcakes were sold in packs by ABC Bakery. Mrs Kumar, Mrs Fauziah and Mrs Leong bought doughnuts and cupcakes at the prices shown below.

Doughnuts



4 packs for $12

Cupcakes



6 packs for $15

a) Mrs Kumar wanted to spend an equal amount of money on doughnuts and cupcakes. Find the **minimum** number of packs of cupcakes she bought.

b) Mrs Leong bought some packs of doughnuts and Mrs Fauziah spent $84 on doughnuts. Mrs Fauziah then gave Mrs Leong 20 doughnuts. In the end, Mrs Fauziah had 88 more doughnuts than Mrs Leong. How many packs of doughnuts did Mrs Leong buy?

Ans: a) _____ [2]

b) _____ [3]

- END OF PAPER 2 -

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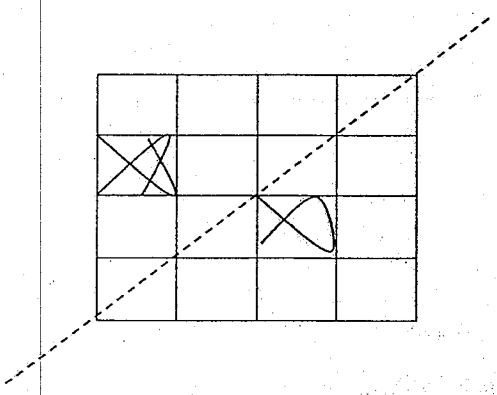
SCHOOL : TAO NAN PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : MATH
TERM : 2019 PRELIM

PAPER 1 BOOKLET A

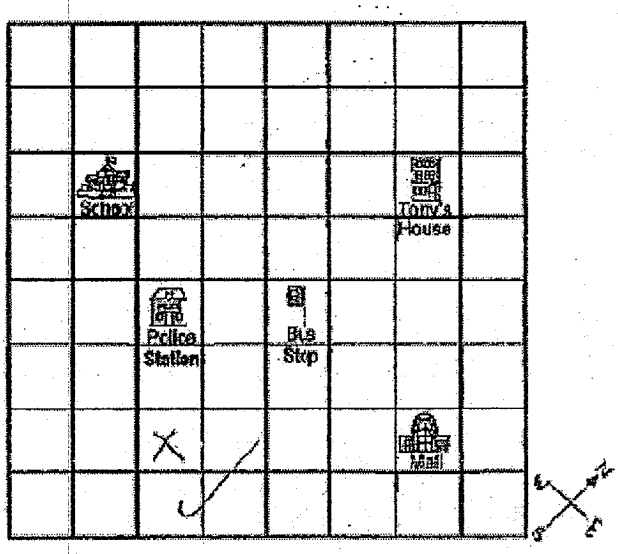
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	1	3	2	4	2	4	3	3	2

Q 11	Q12	Q13	Q14	Q15
4	3	4	1	1

PAPER 1 BOOKLET B

Q16)	$24 \div 25 \times 100 = 96$ $\frac{1}{3}$ of 96 = 96 $\div$ 3 = 32
Q17)	35km ÷70km/h = 0.5h = 30 min
Q18)	$85\frac{5}{7}\%$
Q19)	10.7 , 10.07 , 1.07 , 0.107
Q20)	
Q21)	98 – 24 ÷2 + (51 – 47) = 98 – 12 + 4 = 90

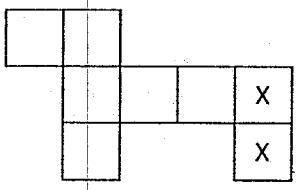
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Q22)	$\frac{15}{5}$ x 15 + 3 = 15 x 3 + 3 = 48
Q23)	Tom In 1 hour→ ½ of room Ali in 1 hour→$\frac{1}{3}$of room $\frac{1}{2} + \frac{1}{3} = \frac{3}{6} + \frac{2}{6} = \frac{5}{6}$
Q24)	16cm ÷ 2 = 8cm 8cm ÷ 2 = 4cm Area = (π x 8cm x 8cm + π x 4cm x 4cm)÷ 2 = $(64\pi\ cm^2 + 16\pi\ cm^2) \div 2$ = 80π cm² ÷ 2 = 40πcm²
Q25)	Perimeter (in cm) = (2y +1) x 4 + 2 x y = 8y + 4 + 2y =(10y + 4)cm
Q26)	a)  b)North-east
Q27)	$40\%\ of\ 70 = \frac{70}{5} \times 2 = 28$ $100\% - 28\% - 30\% = 42\%$
Q28)	8.10p.m
Q29)	(240cm + 30cm + 150cm + 180cm + 160cm + 80cm) ÷6 = 840cm ÷ 6 = 140cm

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Q30)	<NOQ = 130° <POQ = 130° – 90° = 40°

PAPER 2

Q1)	6
Q2)	100% - 15% = 85% Shaded area : Area of figure 15 : 85+15+85 15 : 185 3 : 37
Q3)	
Q4)	8 x 3 = 24 24 ÷ 2 = 12 12 – 8 = 4
Q5)	No. of squares = 13 x 13 = 169
Q6)	Usual price = \$11 x 2 + \$18 = \$40 Percentage discount = $\frac{40-32}{40}$ x 100% = 20%
Q7)	a)86400 x 2ml = 172800ml = 172.8 l b)0.20 x 172.8 = \$34.56
Q8)	Time taken = 340km ÷ 85km/h = 4h Distance between M and P = 65km/h x 4h = 260km
Q9)	a)<ACB = 76° <BAC = 112° – 76° = 36° <BAC is 36° b)<EAC = 76° <DAB = 180° – 36° – 76° = 68° <DAB is 68°
Q10)	4 units = $55 \div 11 \times 4 = 20$

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Q11)	a)cost of a child's ticket = \$58 ÷ 2 = \$29 b)402 x \$58 = \$23316 Extra = \$23316 – \$17690 = \$5626 Diff = \$58 – \$29 = \$29 No.of children = \$5626 ÷ \$29 = 194
Q12)	a)Company : B company A \$0.30x90+\$0.80x75+\$1x56 = \$143 company B \$0.30x100+\$0.80x50+\$1x84 = \$154 Difference = $\$154 - \$143 = \$11$ b)i)False ii)True
Q13)	20cm ÷ 2 = 10cm Area of triangle = ½ x 20cm x 10cm = 100cm² Area of semicircle = ½ x 3.14 x 10cm x 10cm = 157cm² 157cm² - 100cm² ÷ 2 = 28.5cm² Area of shaded = 100cm² - 28.5cm² = 71.5cm²
Q14)	a)Total mass of Ahmad, Brian, Caili and Devi = 38kg x 4 = 152kg total mass of Ahmad, Brian, Caili = 37kg x 3 = 111kg Devi's mass = 152kg – 111kg = 41kg Caili mass = 77kg – 41kg = 36kg b)Ahmad's mass = 152kg – 36kg – 41kg – 41kg = 34kg
Q15)	50 – 40 = 10 4 – 1 = 3 3 units = p + p + 40 = 2p + 40 1 unit = 1p + 10 2 units = (1p+10) x 2 = 2p + 20 1 unit = 2p + 40 – 2p + 20 = 20 P = 20 – 10 = 10 No.of buns baked in the moring = 50 + 10 x 3 = 80 N0.of cakes left = p = 10 a)The bakery baked 80 buns. b)10 cakes were left
Q16)	a)volume of water in B at the end $= \frac{3960cm^3}{5+3} \times 3 = 1485cm^3$ b)Diff = 1485cm³ - 660cm³ = 825cm³ increase in water level = 825cm³ ÷ 30cm² = 27.5cm

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Q17)	a)LCM of (12,15) = 2 x 2 x 3 x 5 = 60 No.of packs of cupcakes = $\frac{\$60}{\$15}$x 6 = 24 b)No. of packs Mrs Fauziah bought = $\frac{\$84}{\$12}$x 4 = 28 No.of doughnuts = 28 x 8 = 224 224 – 20 = 204 204 – 88 = 116 116 – 20 = 96 No.of packs Mrs Leong bought = $\frac{96}{8}$= 12

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