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Temasek Primary School
PSLE Preliminary Examination
Primary Six
2015

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MATHEMATICS
PAPER 1
(BOOKLET A)

Name : _____ ()

Class : Primary 6 _____

Date : 25th August 2015

Parent's Signature: _____

Total Time for Booklets A & B: 50 min

Instructions to Candidates:

1. Write your name, class and register number in the spaces provided clearly.
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 in the Optical Answer Sheet (OAS) provided.
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, 4 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. You are **not** allowed to use a calculator.

(20 marks)

1. Round off 819 572 to the nearest hundreds.

- (1) 819 500
- (2) 819 570
- (3) 819 580
- (4) 819 600

2. Express 4 hundreds, 5 ones and 19 thousandths as a decimal.

- (1) 45.019
- (2) 45.19
- (3) 405.019
- (4) 450.19

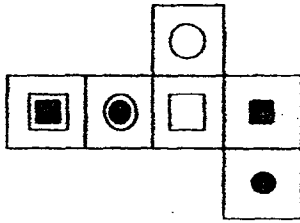
3. A movie started at 22 50 and ended 2 hours later. At what time did the movie end?

- (1) 00 50
- (2) 01 50
- (3) 19 50
- (4) 20 50

4. Kimberly bought a bag at a discount of 20%. If the original price of the bag was \$150, how much did Kimberly pay?

- (1) \$30
- (2) \$120
- (3) \$130
- (4) \$180

5. The figure below shows a net of a cube.



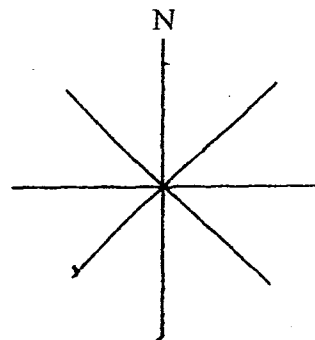
When the net is folded to form the cube, which face is directly opposite to ● ?

- (1) ○
(2) □
(3) ●
(4) ■
6. Given that the radius of the circle is 14 cm, find its area. (Take $\pi = \frac{22}{7}$)
- (1) 28 cm²
(2) 44 cm²
(3) 88 cm²
(4) 616 cm²
7. Find the ratio of 400 g to 2 kg.

- (1) 1 : 5
(2) 2 : 1
(3) 5 : 1
(4) 200 : 1

8. Vignesh turned 135° clockwise and found himself facing North. In which direction was he facing before he made the turn?

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



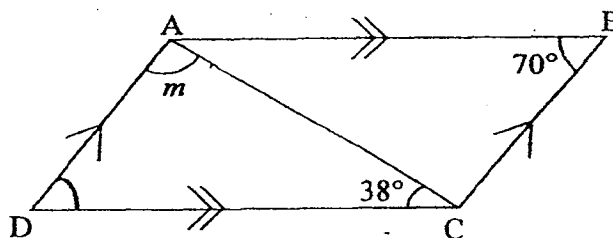
9. Express $\frac{3}{4}$ as a percentage.

- (1) 0.75%
- (2) 12%
- (3) 75%
- (4) 133.33%

10. Alicia has \$200. She has \$y more than her sister. How much do both of them have altogether?

- (1) \$(400 + y)
- (2) \$(400 - y)
- (3) \$(y - 400)
- (4) \$400y

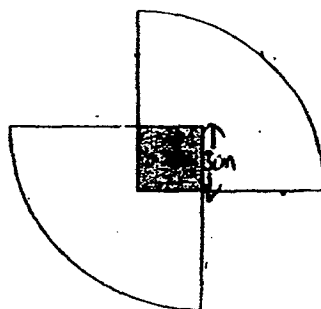
11. The figure shown below is not drawn to scale. $AB \parallel CD$ and $AD \parallel BC$. Find $\angle m$.



- (1) 32°
- (2) 38°
- (3) 70°
- (4) 72°

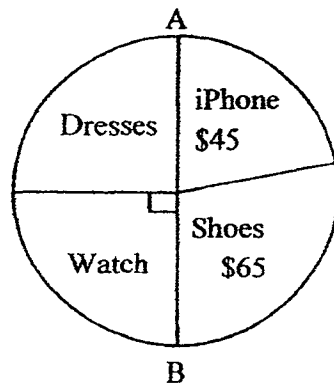
12. The figure below (not drawn to scale) is made up of 2 similar quadrants of radius 7 cm. The length of the shaded square is 3 cm. What is the perimeter of the whole figure?

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



- (1) 22 cm
- (2) 38 cm
- (3) 44 cm
- (4) 50 cm

13. The pie chart below shows the items Su Min bought last Sunday.



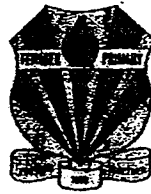
AB is a straight line. If Su Min bought 2 similar dresses last Sunday, what was the cost of each dress?

- (1) \$ 27.50
(2) \$ 55.00
(3) \$ 90.00
(4) \$110.00
14. 5 painters took 4 days to complete painting 3 houses. How many days would it take 10 painters to paint 12 houses?
- (1) 6
(2) 8
(3) 16
(4) 24
15. Ahmad drove a distance of 60 km in 45 minutes. He returned by the same route but he increased his speed by 50%. What was the total time spent on the two-way journey?
- 1) 30 minutes
2) 60 minutes
3) 75 minutes
4) 90 minutes

---- End of Booklet A ----

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MATHEMATICS
PAPER 1
(BOOKLET B)

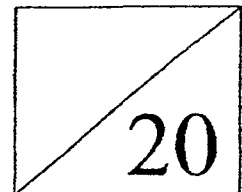
Name : _____ ()

Class : Primary 6 _____

Date : 25th August 2015

Parent's Signature: _____

Total Time for Booklets A & B: 50 min



Instructions to Candidates:

1. Write your name, class and register number in the spaces provided clearly.
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 your answers in this booklet.
6. You are **NOT** allowed to use a calculator.

Questions 16 to 25 carry 1 mark each. Write your answer in the spaces provided. For questions which require units, give your answers in the units stated. You are **not** allowed to use a calculator.

(10 marks)

16. Find the value of $\frac{2}{15} \div \frac{4}{7}$.

Give your answer in the simplest form.

Answer: _____

17. Find the value of $100 - 11 \times 8 \div 4$.

Answer: _____

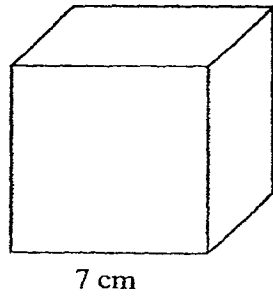
18. Write the biggest whole number which when rounded off to the nearest thousand gives 4 000.

Answer: _____

19. Express \$1.20 as a fraction of \$3.
Give your answer in the simplest form.

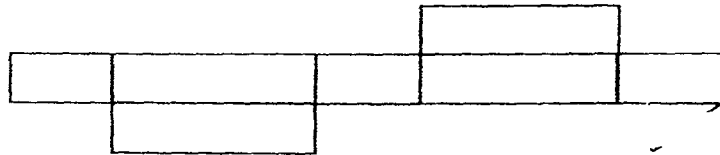
Answer: _____

20. The cube below, not drawn to scale, has a length of 7 cm. What is its volume?

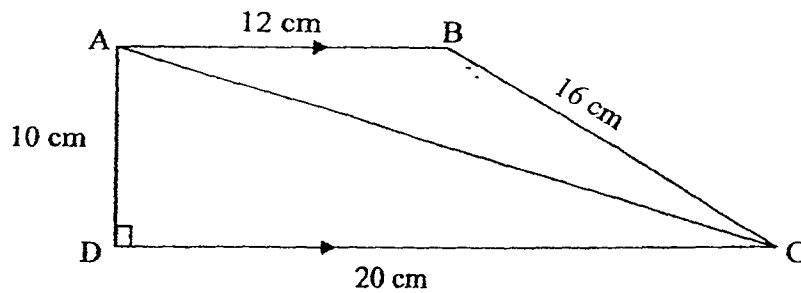


Answer: _____ cm^3

21. The figure below is not a net of the given solid because it has one extra face. Identify this extra face and put a cross (×) on it.



22. The figure below is not drawn to scale. ABCD is a trapezium. Find the area of triangle ABC.



Answer: _____ cm^2

23. A butter cake recipe requires 250 g of butter to make one cake. How much butter must Daisy buy if she wants to make 5 such butter cakes?

Answer: _____ kg

24. Mr Wee has a sack of flour. He sold 40% of it and repacked the rest into 8 small packets. What percentage of the sack of flour is each small packet of flour?

Answer: _____ %

25. Find the value of $\frac{8a-15}{a}$ when $a = 5$.

Answer: _____

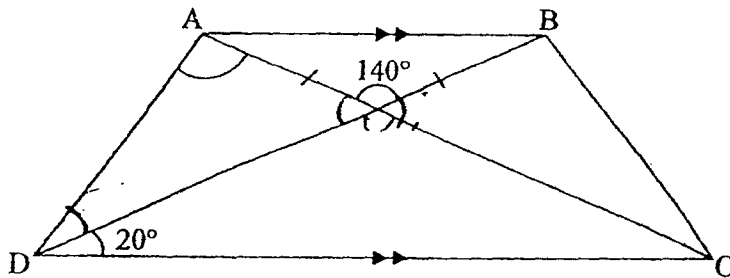
Questions 26 to 30 carry 2 marks each. Show your working clearly in the space provided for each question and write your answers in the spaces provided. For questions which require units, give your answers in the units stated.

(10 marks)

26. The average mass of Bags A, B and C is 24 kg. Bag A is 6 kg heavier than Bag B. Bags B and C are of the same mass. Find the mass of Bag A.

Answer: _____ kg

27. The figure below is not drawn to scale. ABCD is a trapezium and $\angle BDC = \angle ADB$. Find $\angle CAD$.



Answer: _____ °

28. Mrs Siti has 210 red, blue and yellow buttons. $\frac{1}{2}$ of her red buttons is equal to $\frac{1}{3}$ of her blue buttons while $\frac{1}{4}$ of her blue buttons is equal to $\frac{1}{5}$ of her yellow buttons. How many yellow buttons does Mrs Siti have?

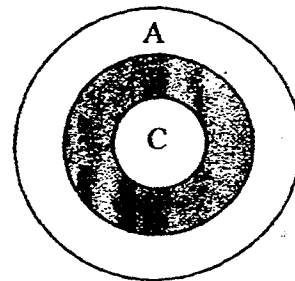
Answer: _____

29. The table below shows the number of families with different numbers of children in a housing estate. If there is a total of 270 children, how many families are there with 3 children each?

No. of children	0	1	2	3	4
No. of families	12	55	40	?	15

Answer: _____

30. Regions A, B and C represent the number of points assigned to the three target areas as shown below. The total points in Regions A and B, B and C, and A and C are 11, 19 and 16 respectively. How many points is assigned to region A?

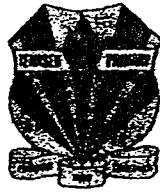


Answer: _____

----- End of Paper 1 -----

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MATHEMATICS
PAPER 2

Name : _____ ()

Class : Primary 6 _____

Date : 25th August 2015

Parent's Signature: _____

Time : 1 h 40 min

Instructions to Candidates:

1. Write your name, class and register number in the spaces provided clearly.
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 your answers in this booklet.
6. You are allowed to use a calculator.

Paper	Marks	Scores
Paper 1 (Booklet A)	20	
Paper 1 (Booklet B)	20	
Paper 2	60	
Total	100	

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. You are allowed to use a calculator.

(10 marks)

-
1. Ali bought y stamps. He gave away 11 of them. Siti gave him 20 stamps. Ali then put all his stamps equally into 8 small boxes. How many stamps were there in each box? (Give your answer in terms of y .)

Answer: _____

-
2. Ivy has some almond, butter and chocolate cookies. $\frac{2}{7}$ of her cookies are almond cookies, $\frac{2}{5}$ of the remainder are butter cookies and the rest are chocolate cookies. If she has 60 chocolate cookies, how many cookies does she have altogether?

Answer: _____

3. The ratio of Steven's age to Cindy's age is 3 : 2. The ratio of Richard's age to Cindy's age is 2 : 5. If Steven is 33 years older than Richard, what is the total age of the three people?

Answer: _____ years

4. The mass of a box completely filled with sand is 9 kg. If $\frac{1}{3}$ of the sand is poured out, the mass of the box and the remaining sand is 6.1 kg. What is the mass of the empty box?

Answer: _____ kg

5. Sally and her mother are travelling to Rome for a holiday. Sally found that when it is 08 40 in Singapore, it is 02 40 in Rome on the same day. If the plane leaves Changi Airport at 09 45 and the flight takes 12 hours and 50 minutes, what time is it in Rome when the plane lands?

Answer: _____

For questions 6 to 18, show your workings 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.

(50 marks)

-
6. The average of 6 numbers is 55. When a 7th number is added, the average of the 7 numbers becomes 64. What is the 7th number?

Answer: _____ (3m)

-
7. Jeslin has some balloons to give to some children at a birthday party. If she gives each child 4 balloons, she will have 35 balloons left over. If she gives each child 6 balloons, she will have 11 balloons left over. How many balloons does Jeslin have?

Answer: _____ (3m)

8. Mrs Lee wants to buy pencils as presents for her pupils for Children's Day. For every 4 pencils she buys, she gets 2 pencils free. What is the least amount of money Mrs Lee will pay if she wants to buy 32 pencils?

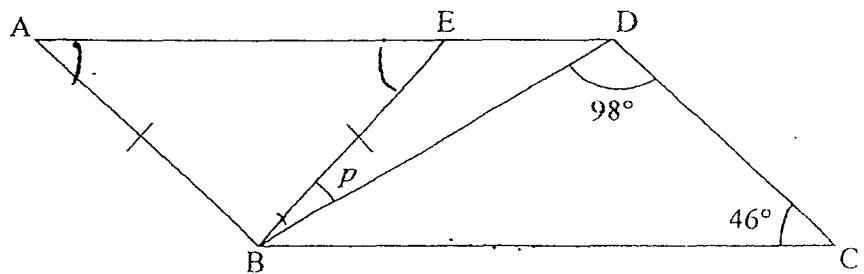


SALE

Each pencil --- \$0.40
 Buy 4 pencils --- Get 2 more pencils free!!

Answer: _____ (3m)

9. The figure below is not drawn to scale. ABCD is a parallelogram and ABE is an isosceles triangle. Find $\angle p$.



Answer: _____ (3m)

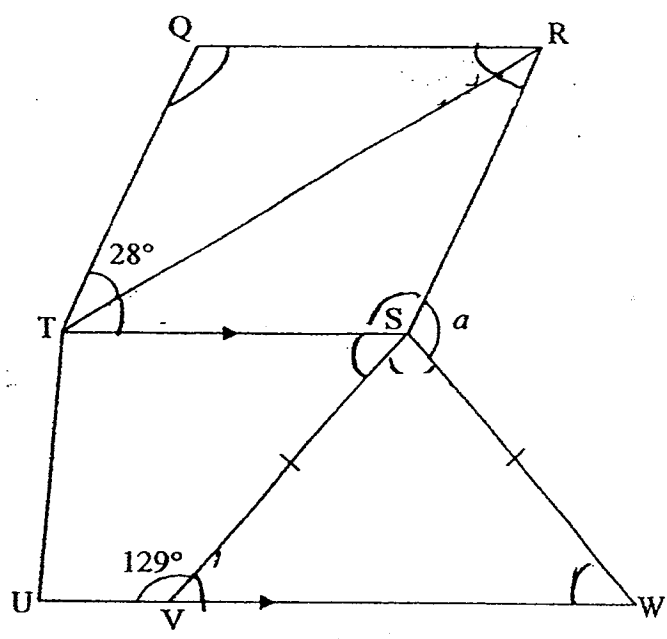
10. Nellie plans to make 340 friendship bands to sell at the bazaar. Each day, she will make 4 more friendship bands than the previous day. She plans to complete the friendship bands in 5 days. How many friendship bands does Nellie plan to make on the first day?

Answer: _____ (3m)

11. Sui Leng has 2 more ^{twenty}~~fifty-cent~~ coins than ^{fifty}~~twenty-cent~~ coins. The value of the fifty-cent coins is \$7.40 more than the value of the twenty-cent coins. How many coins does Sui Leng have?

Answer: _____ (4m)

12. The diagram shown below is not drawn to scale. QRST is a rhombus and STUW is a trapezium. Find $\angle a$.



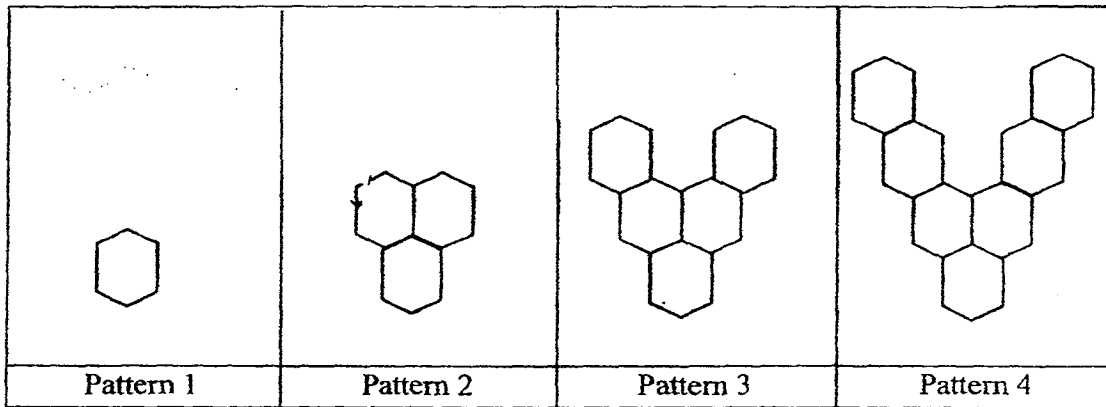
Answer: _____ (4m)

13. Mr Yeo and Mr Woon left Town X for Town Y at the same time. When Mr Yeo reached Town Y 6 hours later, Mr Woon covered only $\frac{3}{5}$ of the distance. If the average speed of Mr Woon was 40 km/h less than the average speed of Mr Yeo,
- (a) find the distance from Town X to Town Y;
 - (b) find Mr Yeo's average speed.

Answer: (a) _____ (3m)

(b) _____ (1m)

14. Helen uses some toothpicks to form the pattern below.



Pattern	Number of toothpicks
1	6
2	15
3	25
4	35
5	(a) _____ (1m)

- (a) How many toothpicks will she need to form Pattern 5?
- (b) How many toothpicks will she need to form Pattern 40?
- (c) Helen uses 4955 toothpicks to form a Pattern. Which Pattern is it?

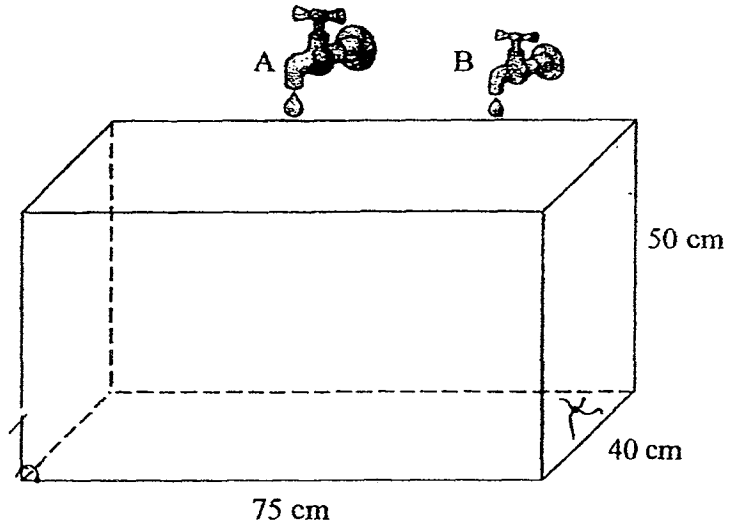
Answer: (b) _____ (2m)

(c) _____ (2m)

15. Vivian spent 25% of her money and additional \$45 on a bracelet. She then spent 40% of her remaining money and an additional \$25 on a watch. Given that she was left with \$65, how much money did Vivian have at first?

Answer: _____ (4m)

16. Raju bought a new fish tank measuring 75 cm by 40 cm by 50 cm. To fill it up with water, he used 2 taps. Tap A alone could fill the whole fish tank in 20 minutes while Tap B alone could fill the whole fish tank in 30 minutes. There was a small hole at the bottom of the fish tank which water leaked out at the rate of 500 ml per minute. How long would it take for Raju to fill up the fish tank if both taps A and B were turned on at the same time?



Answer: _____ (4m)

17. Jane, Ken and Leon decided to contribute some money to buy a present for their mother. Jane agreed to contribute 30% of the cost of the present while Ken agreed to pay 40% of the remaining amount. The rest will be paid by Leon. However, when they went to buy the present, the price of the item had increased by 25%. As a result, Jane paid \$36 for her share.
- (a) What was the original price of the present?
 - (b) How much did Leon have to pay in the end?

Answer: (a) _____ (3m)

(b) _____ (2m)

18. Mrs Wong has some apples and pears. If she exchanges 10% of her apples for pears, she will have 160 pears. On the other hand, if she exchanges 20% of her pears for apples, she will have 100 pears left. What fraction of her fruits are apples? Give your answer in its simplest form.

Answer: _____ (5m)

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

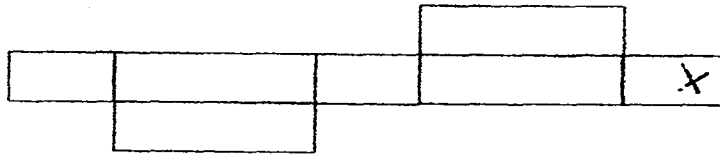
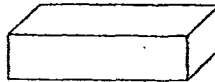


EXAM PAPER 2015
 LEVEL : PRIMARY 6
 SCHOOL : TEMASEK PRIMARY SCHOOL
 SUBJECT : MATHS
 TERM : PRELIMINARY EXAMINATION

PAPER ONE

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	3	1	2	4	4	1	4	3	2
Q11	Q12	Q13	Q14	Q15					
4	2	1	2	3					

- Q16. $\frac{1}{30} \rightarrow \frac{2}{15} \times \frac{1}{4} = \frac{1}{30}$ Q17. 78 Q18. 4499 Q19. $\frac{2}{5}$
 Q20. $343\text{cm}^3 \rightarrow 7\text{cm} \times 7\text{cm} \times 7\text{cm} = 343$ Q21. SEE PICTURE



- Q22. $60\text{cm}^2 \rightarrow \frac{1}{2} \times 12 \times 10\text{cm} = 60\text{cm}^2$ Q23. $1.25\text{kg} \rightarrow 250 \times 5 = 1250, 1250 = 1.25$
 Q24. $7.5\% \rightarrow 60 \div 8 = 7.5$ Q25. $5 \rightarrow 40 - 15 = 25$
 Q26. $28\text{kg} \rightarrow 72\text{kg} - 6 = 66\text{kg}, 66\text{kg} \div 3 = 22\text{kg}$
 Q27. $120^\circ \rightarrow 360 - 280 = 80, 80 \div 2 = 40, \angle CAD = 180^\circ - 40^\circ - 20^\circ = 120^\circ$
 Q28. $90 \rightarrow \text{Red} : \text{Blue} : \text{Yellow} \rightarrow 2 : 3, 8 : 12 : 15, 4 : 5, 3 \text{ units} \rightarrow 210, 1 \text{ unit} \rightarrow 210 \div 35 = 6,$
 No. of yellow buttons $\rightarrow 158 = 90$
 Q29. $25 \rightarrow 1 \times 55 = 55, 80 + 60 + 55 = 195, 270 - 195 = 75, 75 \div 3 = 25$
 Q30. 4 points $\rightarrow 11 + 19 + 16 = 46, 46 \div 2 = 23, 23 - 19 = 4$

PAPER 2

- Q1. $\frac{y+9}{8}$ stamps $\rightarrow y - 11 = y - 11, y - 11 + 20 = y + 9, \text{No. of stamps in each box } \frac{y+9}{8}$
 Q2. 140 cookies $\rightarrow a : b : c \rightarrow 2 : 2 : 3 \rightarrow 1 \text{ unit} \rightarrow 60 \div 3 = 20, \text{No. of cookies altogether} = 20 \times 7 = 140.$
 Q3. 87 years $\rightarrow S : C \rightarrow 3 : 2 \rightarrow 15 : 10, R : C \rightarrow 2 : 5 \rightarrow 4 : 10, 11 \text{ units} = 33, 1 \text{ unit} = 33 \div 11 = 3,$
 total age = $29 \times 3 = 87.$
 Q4. $20.3\text{kg} \rightarrow 9\text{kg} - 6.1\text{kg} = 2.9\text{kg}, 2.9\text{kg} \times 3 = 8.7\text{kg}, \text{Mass of empty box} = 9\text{kg} - 8.7\text{kg} = 0.3\text{kg}$
 Q5. $4.35\text{pm} \rightarrow 0240 \rightarrow 2.40\text{am}, 0840 \rightarrow 8.40\text{am} = \text{total } 6\text{hrs}$
 Q6. $118 \rightarrow 55 \times 6 = 330, 64 \times 7 = 448, 7^{\text{th}} \text{ number} = 448 - 330 = 118$
 Q7. $83 \rightarrow \text{gives } 4 \rightarrow 35 \text{ excess, gives } 6 \rightarrow 11 \text{ excess, } 35 - 11 = 24, 6 - 4 = 2, 24 \div 2 = 12, \text{No. of balloons} = 112 \times 4 + 35 = 83$
 Q8. $\$8.80 \rightarrow 4 + 2 = 6, 40.40 \times 4 = \$1.60, 32 \div 6 = 5\text{R}2, 5 \text{ sets} = 5 \times \$1.60 = \$8, \text{Amt of money mrs lee needs to pay} = \$8 + (\$0.40 \times 2) = \8.80
 Q9. $10^\circ \rightarrow 180^\circ - 46^\circ - 46^\circ = 88^\circ, \angle 98^\circ - 88^\circ = 10^\circ.$
 Q10. $60 \rightarrow 4 + 8 + 12 + 16, 340 - 40 = 300, 300 \div 5 = 60, 300 \div 5 = 60, \text{No. of friendship bands Nellie plans to make on the first day} = 60.$
 Q11. $54 \rightarrow \text{No. of coins} = 26 + 28 = 54$
 Q12. $78^\circ \rightarrow \angle RST \rightarrow 180^\circ - (2 \times 28^\circ) = 124^\circ, \angle VSW \rightarrow 180^\circ - (2 \times 51^\circ) = 78^\circ$
 Q13a. $600\text{km} \rightarrow 40\text{km} \times 1\text{h} \times 6 = 240\text{km}, 240\text{km} \div 2 = 120\text{km}, 120\text{km} \times 5 = 600\text{km},$
 Q13b. $100\text{km/hr} \rightarrow \text{Mr yeo's average speed} = 600\text{km} \div 6\text{hr} = 100\text{km/hr}$

Q14a. SEE PICTURE Q14b. 395 → Pattern 40 = 40 x 10 = 5 = 395

Pattern	Number of toothpicks
1	6
2	15
3	25
4	35
5	(a) <u>45</u> (1m)

Q14c. 496 → Pattern no. $(495 + 5) \div 10 = 496$

Q15 \$260 → 6 units → $\$65 + \$25 = \$90$, 1 unit → $\$90 \div 6 = \15 , 10 units → $\$15 \times 10 = \150 , $\$150 + \$45 = \$195$, 1 unit → $\$195 \div 3 = \65 , Amt of money Vivian had at first = $\$65 \times 4 = \260 .

Q16. 12min 30sec → $50\text{cm} \times 40\text{cm} \times 75\text{cm} = 150,000$, $150,000 \div 20 = 7500$, $150,000 \div 30 = 5,000$, $7500 + 5000 = 12,500$, $12,500 - 500 = 12,000$, How long it will take = $150,000 \div 12,000 = 12\text{min } 30\text{secs}$.

Q17.a. \$96 → Present → Joyce 30%, 70% → Ken 40%, Leon 60%, 30% of present price → \$36, 100% of present price = \$126, 125% of original price → \$120, 100% of original price → \$96.

Q17b. \$50.50 → Amount Leon → $(\frac{3}{5} \times \frac{7}{10}) \times \$120 = \$50.50$

QQ18. $\frac{14}{19}$ → 80% pears → 100, $100 \div 4 = 25$, $25 \times 5 = 125$, $25 \times 5 = 125$, 10% apples → $160 - 125 = 35$, 1 apple → $10 \times 35 = 350$, Total no. of fruits → $350 + 125 = 425$, Fraction required = $\frac{14}{19}$

THE END