603 / SA1 / 4

RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 1)
**PRIMARY 6**

Name: _____ (   )

Form Class: P6 _____   Math Teacher : _____.

Date: 14 May 2019   Duration : 1 hour

Your Paper 1 Score **(Out of 45 marks)**	
Your Paper 2 Score **(Out of 55 marks)**	
Your Total Score **(Out of 100 marks)**	
Parent's Signature	

INSTRUCTIONS TO CANDIDATES

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

2. Follow all instructions carefully.

3. Answer **ALL** questions and show all working clearly.

4. **NO** calculator is allowed for this paper.
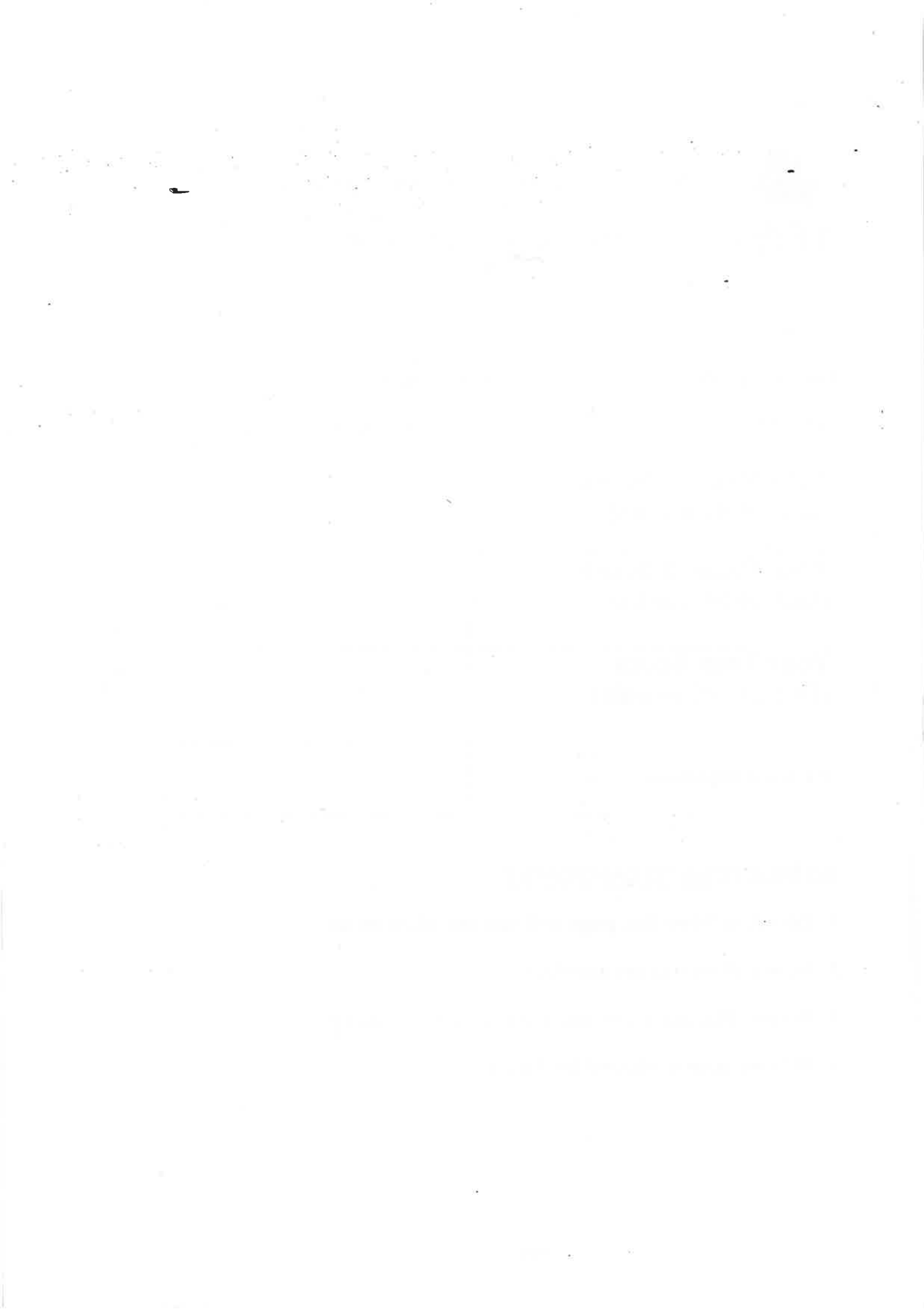
Questions **1** to **10** carry 1 mark each. Questions **11** to **15** carry 2 marks each.
For each question, four options are given. One of them is the correct answer.
Make your choice (1, 2, 3 or 4). Shade your answer (1, 2, 3 or 4) on the OAS provided.
All diagrams are not drawn to scale.   [20 marks]

1.   What does the digit 7 in 50.763 stand for?

   (1)   7 ones

   (2)   7 tenths

   (3)   7 hundredths

   (4)   7 thousandths

2.   What is eight million and forty thousand in numerals?

   (1)   804 000

   (2)   840 000

   (3)   8 040 000

   (4)   8 400 000

3.   John has $160. He has $100 more than Kim. Express the amount of money
     John has as a fraction of the amount of money Kim has.

   (1) $\frac{3}{8}$

   (2) $\frac{8}{13}$

   (3) $\frac{8}{5}$

   (4) $\frac{8}{3}$

4. Terry has $7\frac{3}{4}$ times as many marbles as Sam. What is the ratio of Terry's number of marbles to Sam's number of marbles?

    (1) $4 : 25$

    (2) $4 : 31$

    (3) $25 : 4$

    (4) $31 : 4$

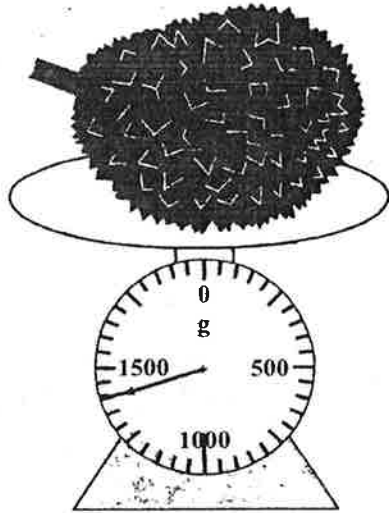5. Find the value of $3 - \dfrac{2y}{5}$ when $y = 4$.

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

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

    (3) $1\dfrac{3}{5}$

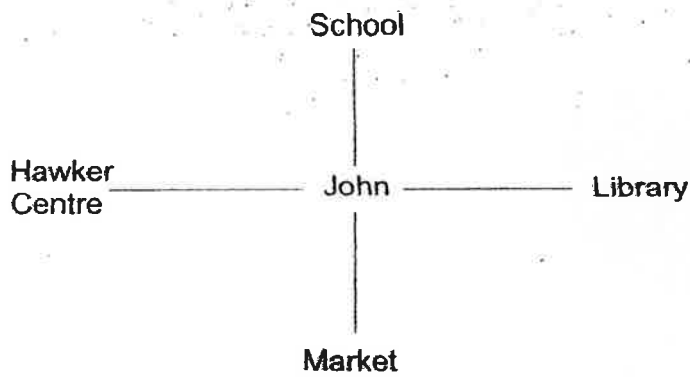   (4) $2\dfrac{3}{5}$

6. What is the mass of the durian?

(1) 1.3 kg

(2) 1.4 kg

(3) 400 kg

(4) 1300 kg

7. Arrange the following fractions beginning with the smallest.

$$\frac{5}{8} \qquad 1\frac{1}{2} \qquad \frac{2}{5}$$

(1) $1\frac{1}{2}$, $\frac{5}{8}$, $\frac{2}{5}$

(2) $\frac{5}{8}$, $\frac{2}{5}$, $1\frac{2}{5}$

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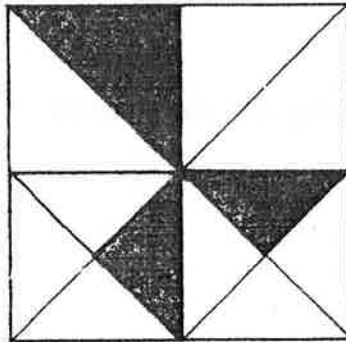
(4) $\frac{5}{8}$, $1\frac{1}{2}$, $\frac{2}{5}$

8.

John was facing the school. He made a 90° clockwise turn followed by a 270° anticlockwise turn. Where was he facing in the end?

(1) School

(2) Library

(3) Market

(4) Hawker Centre

9. What percentage of the square is shaded?
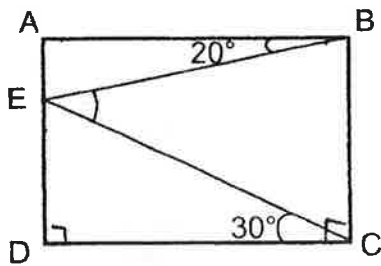

(1) 25%

(2) 37.5%

(3) 50%

(4) 75%

10. 23 pupils from Class 5A and 37 pupils from Class 5B went for a baking workshop. The total cost of the workshop for both classes was $900. What was the cost of the workshop for each pupil?

 (1) $15
 (2) $18
 (3) $150
 (4) $180

11. ABCD is a rectangle. Find ∠BEC.

 (1) 40°
 (2) 50°
 (3) 60°
 (4) 70°

12. Devi is x years old. She is 3 times as old as her brother. How old is her brother in 2 years' time?

 (1) 3x + 2
 (2) 3x − 2
 (3) $\frac{x}{3} + 2$

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

13. A fishmonger had 12.3 kg of prawns and 32.08 kg of fish in the morning. He had a total of 8.205 kg of prawns and fish left at the end of the day. How much prawns and fish did he sell that day?

   (1)   36.175 kg
   (2)   36.85 kg
   (3)   52.585 kg
   (4)   53.35 kg

14. The area of the shaded part is 20% of the area of the square. The area of the unshaded part is 40 cm². Find the area of the square.
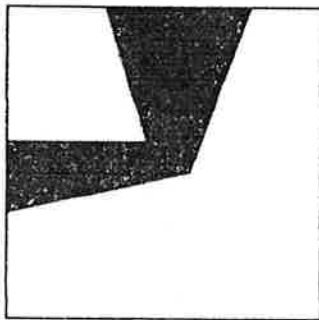
   (1)   10 cm²
   (2)   50 cm²
   (3)   160 cm²
   (4)   200 cm²

15. The price of the microwave oven was $\frac{1}{8}$ of the price of the refrigerator. During a sale, a 25% discount was given for the refrigerator. What was the ratio of the price of the microwave oven to that of the refrigerator during the sale?

   (1)   1 : 4
   (2)   1 : 6
   (3)   3 : 4
   (4)   4 : 1

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

16.   Evaluate $54 + (28 - 10) \div 6$

Ans: _____

17.   What is the average amount of savings the children have?

Name	Savings ($)
Joshua	13
Emma	9
Belle	0
Helmi	14

Ans: $_____

18. Round 13.952 to the nearest tenth.

Ans: _____

19. Starting from 6 p.m., a bus leaves the interchange at intervals of 6 minutes. Mr Kum reaches the interchange at 6.27 p.m. What is the earliest time he can board the bus? Give your answer in 24-hour clock.

Ans: _____

20. Siti bought 3 dozen pens. She gave away $\frac{3}{4}$ of the pens. How many pens did she give away?

Ans: _____

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. All diagrams are not drawn to scale. [20 marks]

21. Mr Wong has some mugs. If he puts them in boxes of 6 or 8, there will be 3 mugs left. What is the least number of mugs Mr Wong has?

Ans: _____

22. Bala bought $\frac{3}{4}$ kg of flour. He gave away $\frac{1}{8}$ kg of flour and used $\frac{1}{3}$ kg of flour to bake some cookies. How much flour had he left?

Ans: _____ kg

23. The figure shows a three-quarter circle of radius 7 cm. O is the centre of

the circle. Find the area of the figure. Take $\pi = \dfrac{22}{7}$
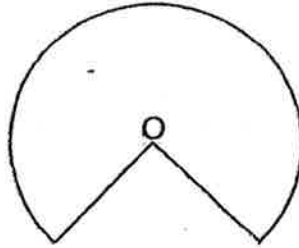
Ans: _____ cm²

24. The length of a ribbon is 1 m 20 cm. A florist makes 3 cuts to it to get
pieces of ribbons of equal length. How long is each piece of ribbon?

Ans:_____ cm

25. Kelly cycled from the school to the library at 10 km/h at 2 p.m. At the same time, Yanie cycled from the library to the school at 8 km/h. The distance between the school and the library was 27 km. What time did they meet each other? Give your answer in 24-hour clock.

Ans:_____

26. Terry had $\frac{9}{10}$ ℓ of fruit juice. He poured $\frac{1}{12}$ ℓ of fruit juice into 1 cup.

How many cups of fruit juice could he get at most?

Ans: _____

27.

Pens for sale

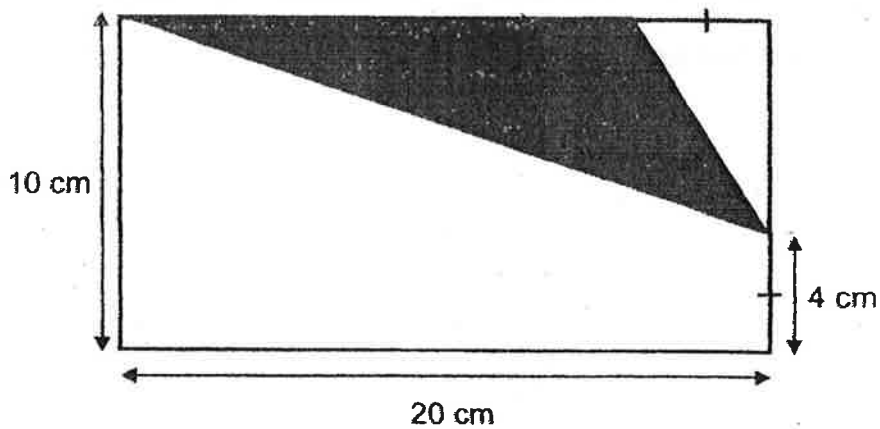$0.50 each
$3.55 per box of 8

Mrs Tham wanted to buy 42 pens. What was the least amount of money
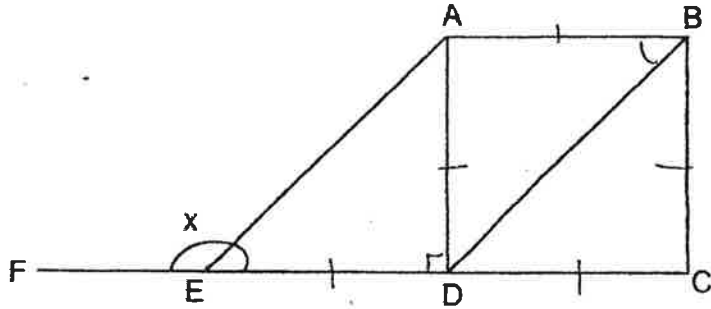that Mrs Tham needed to pay for the pens?

Ans: $_____

28. The figure is made up of a rectangle and a triangle. Find the total area of
the unshaded parts.

10 cm

4 cm

20 cm

Ans: _____ cm²

29. ABCD is a square and ABDE is a parallelogram. FC is a straight line. Find ∠x.
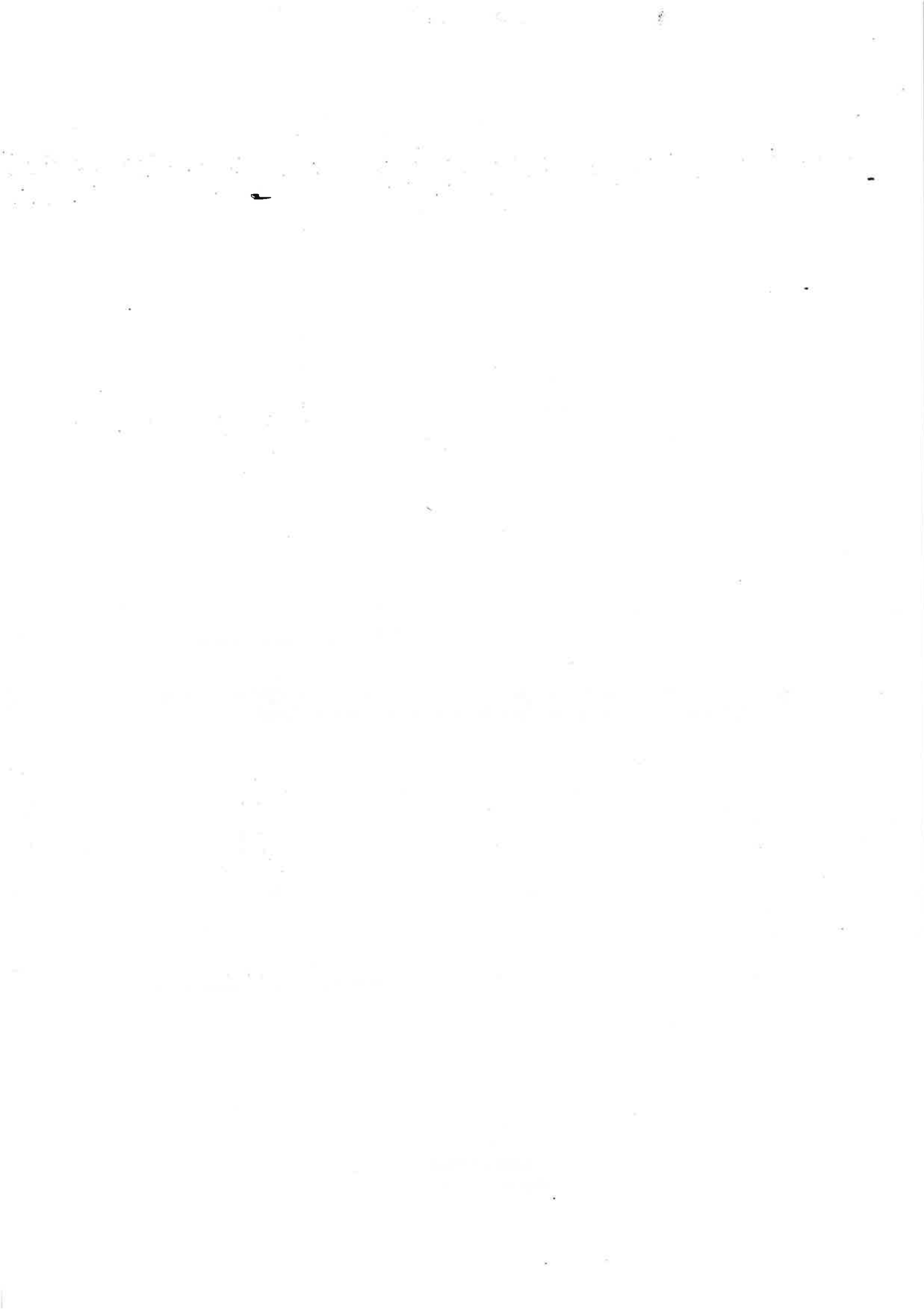

Ans: _____ °

30. Mrs Tan always saved 30% of her salary. In June, her salary increased by 10% and she saved $120 more. What was her salary in June?

Ans: $ _____

RAFFLES GIRLS' PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1
MATHEMATICS (PAPER 2)
PRIMARY 6

Name: _____ ( )

Form class: P6 _____   Math Teacher : _____

Date: 14 May 2019   Duration: 1 h 30 min

INSTRUCTIONS TO CANDIDATES

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

2. Follow all instructions carefully.

3. Answer **ALL** questions and show all working clearly.

4. The use of calculator is allowed for this paper.

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

1. Yanni had $w. She spent $9 on some stationery. Then she divided the remaining money among her 2 sisters.

    a) Express the amount of money each sister received in terms of w.

    b) If each sister received $35, how much did Yanni have?

    Ans : a) $ _____ [1]

    b) $ _____ [1]

2. Find the sum of ∠a and ∠b.
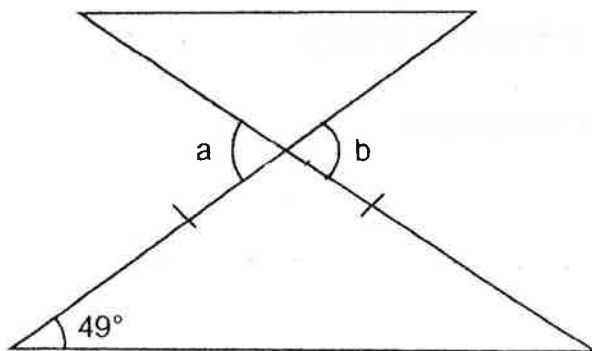
    Ans : _____° [2]

3. Devi is 8 years older than Jerry. In 4 years' time, the ratio of their age will be 5 : 7. What is the age of Jerry now?

Ans : _____ [2]

4. The average mass of 4 children is 25 kg.
The total mass of 2 children is 54 kg. What is the average mass of the other 2 children?

Ans : _____ kg [2]

5. A box contained some blue and red marbles. $\frac{1}{4}$ of the marbles were blue. Jane added 20 green marbles into the box.

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

Statement	True	False	Impossible to tell
a) After adding the green marbles, the fraction of the marbles that were blue was less than $\frac{1}{4}$.			
b) The fraction of marbles that were green was greater than the fraction of marbles that were red.			

For questions **6** to **17**, show your working clearly in the space provided for each question and write your answers in the spaces provided.
The number of marks available is shown in the brackets [ ] at the end of each question or part-question.
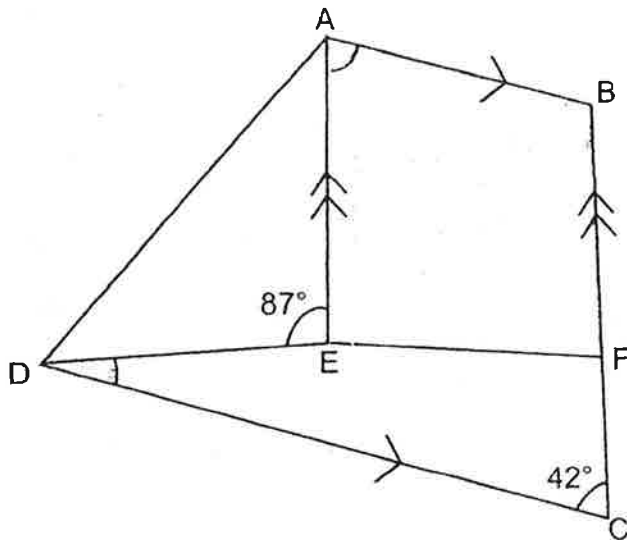All diagrams are not drawn to scale.   [45 marks]

6.   Ming Yi saved a total of $70 in 7 days. From the second day onwards, she saved $2 more than the previous day. How much did she save on the 4th day?
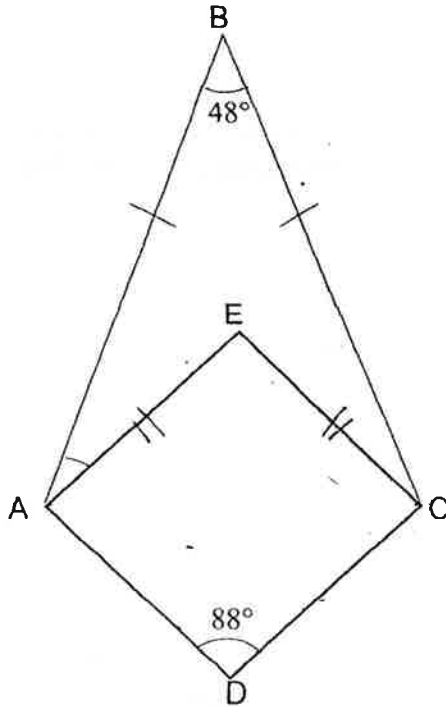
Ans : _____ [3]
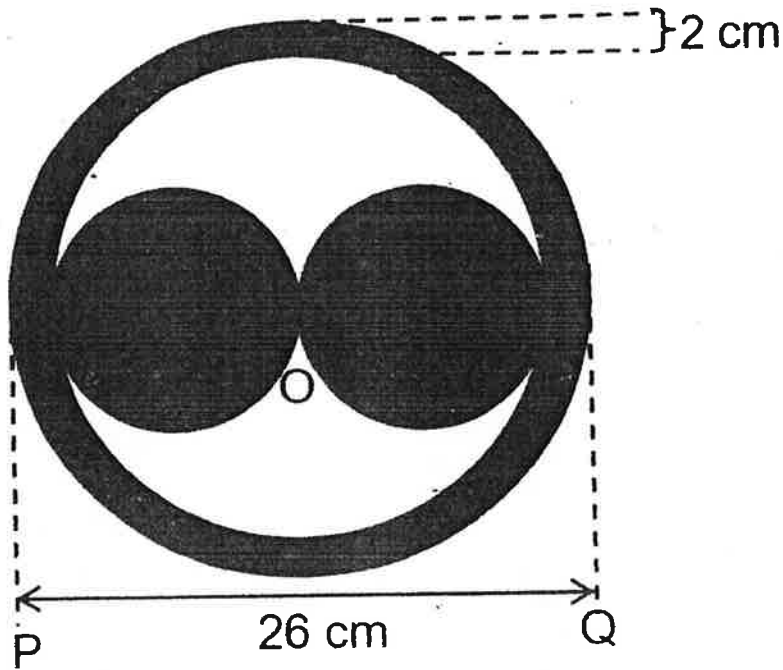
7.   ABCD is a trapezium. EA // FB . Find ∠EDC.

Ans : _____ [3]

8. AECD is a rhombus. AB = BC. Find ∠BAE.

Ans : _____ [3]

9. The figure is made up of 4 circles. The length of PQ is 26 cm. O is the centre of the biggest circle. The 2 inner shaded circles meet at O. The width of the shaded ring is 2 cm. Find the total area of the shaded parts.

Take π = 3.14


}2 cm

P   26 cm   Q

Ans : _____ [4]

10. Samsia earned $0.45 for each keychain sold. For every 35 keychains sold, she would be given an additional amount of money. She sold 163 keychains and received $95.35 altogether. What was the additional amount of money she would be given for every 35 keychains sold?

Ans: _____ [3]

11. The figure shows Tank A and Tank B placed together. Both the tanks were empty. Tank A had a breadth of 22 cm and its length was twice that of its breadth. When some water was poured into Tank A, some of the water flowed into Tank B through the hole which was just above Tank B. In the end, Tank B was $\frac{2}{3}$ filled and there was a total of 10 230 ml of water in the two tanks.

(a) What was the volume of water in Tank B?
(b) What was the capacity of Tank B?

Tank A

hole

Tank B

9 cm

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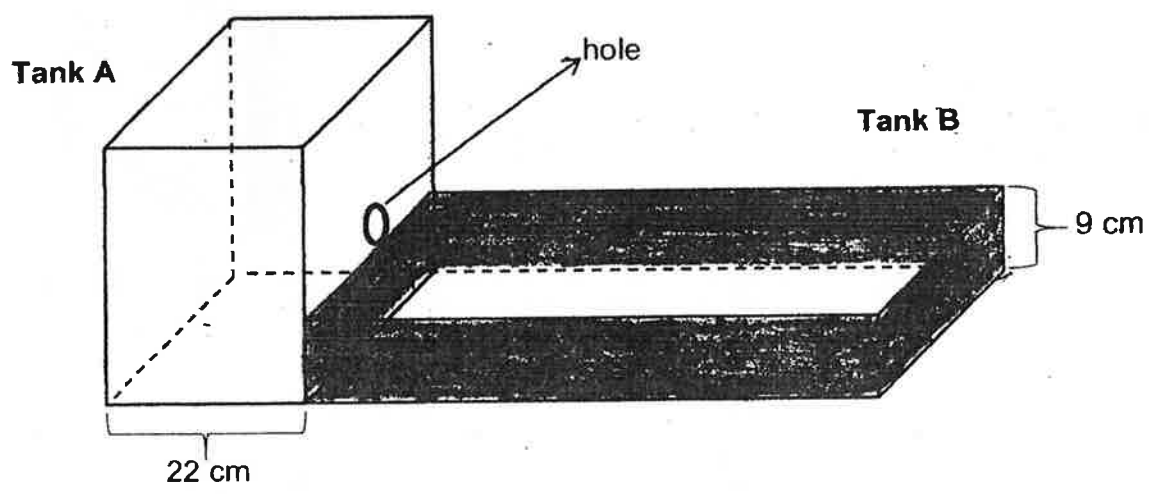
Ans: (a) _____ [2]
     (b) _____ [2]

12. Mrs Tan bought a handbag in France. She wanted to sell the bag for $3480. After some bargaining, she sold the handbag to Mrs Lee at a 25% discount of the selling price. The amount she received from Mrs Lee was 20% more than what she paid for the handbag. How much did she pay for the handbag?


$3480

Ans: _____ [4]

13. The figure shows an isosceles triangle, a three-quarter circle and a semicircle.
The three-quarter circle and the semicircle have a radius of 14 cm each. M is the midpoint of AB.
What is the perimeter of the figure? Give your answer in terms of π.
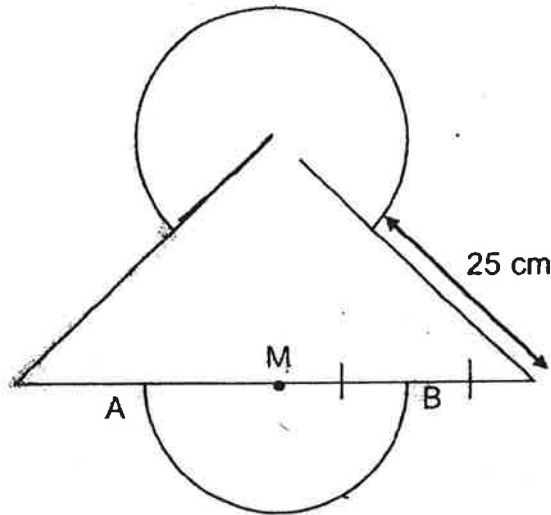
Ans: _____ [3]

14. A tank is filled with water from 2 taps. Tap A alone can fill the tank completely in 10 minutes. Tap B alone can fill the tank twice as fast as Tap A. Both taps are turned on at the same time.

(a) How long does it take for Tap B alone to fill the tank completely?
(b) How long does it take for both taps to fill the tank completely?
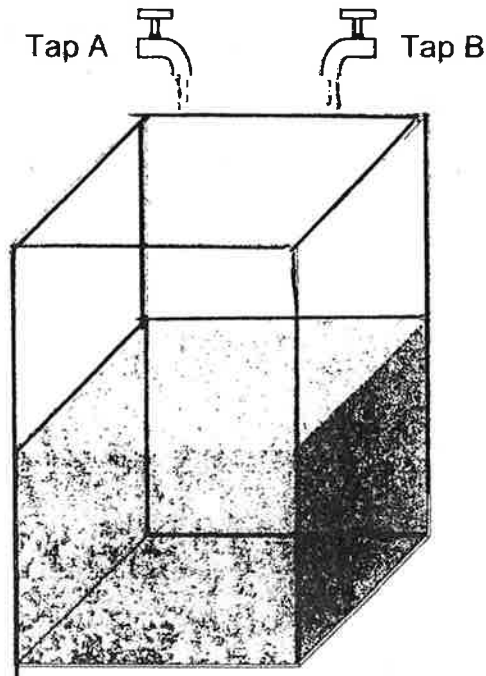
Ans: (a)_____[1]

(b)_____ [3]

15. There were 850 pairs of shoes produced in a factory. Each pair of female shoes was sold at $45. Each pair of male shoes was sold at $39. When all the shoes were sold, the amount of money collected from the sale of female shoes was $12 210 more than the amount of money collected from the sale of male shoes. How much money was collected from the sale of the male shoes? Round your answer to the nearest hundred dollars.

Ans: _____ [4]

16. Mrs Tan baked some muffins. $\frac{3}{5}$ of the muffins were banana muffins and the rest were walnut muffins. Her family ate $\frac{3}{4}$ of the banana muffins and she donated 252 walnut muffins to an old folks' home. Then she had $\frac{1}{4}$ of the muffins left.

(a) What fraction of the muffins did her family eat?
    Give your answer in the simplest form.
(b) How many muffins did she bake altogether?

Ans : (a) _____ [2]

(b) _____ [3]

17. The table shows the cost of fruits in Stall A.

Food	Price
Oranges	4 for $3
Apples	3 for $2
French Melons	$9 each

(a) Mr Tan bought an equal number of oranges and apples. What was the ratio of the amount he spent on the oranges to the amount he spent on the apples? Give your answer in the simplest form.

(b) Mrs Lee bought some fruits. The ratio of the number of oranges to the number of apples to the number of French melons is 8 : 9 : 3. She spent $936 altogether. How many fruits did she buy altogether?

Ans: (a) _____ [2]

(b) _____ [3]

End of Paper
Please check your work carefully ☺
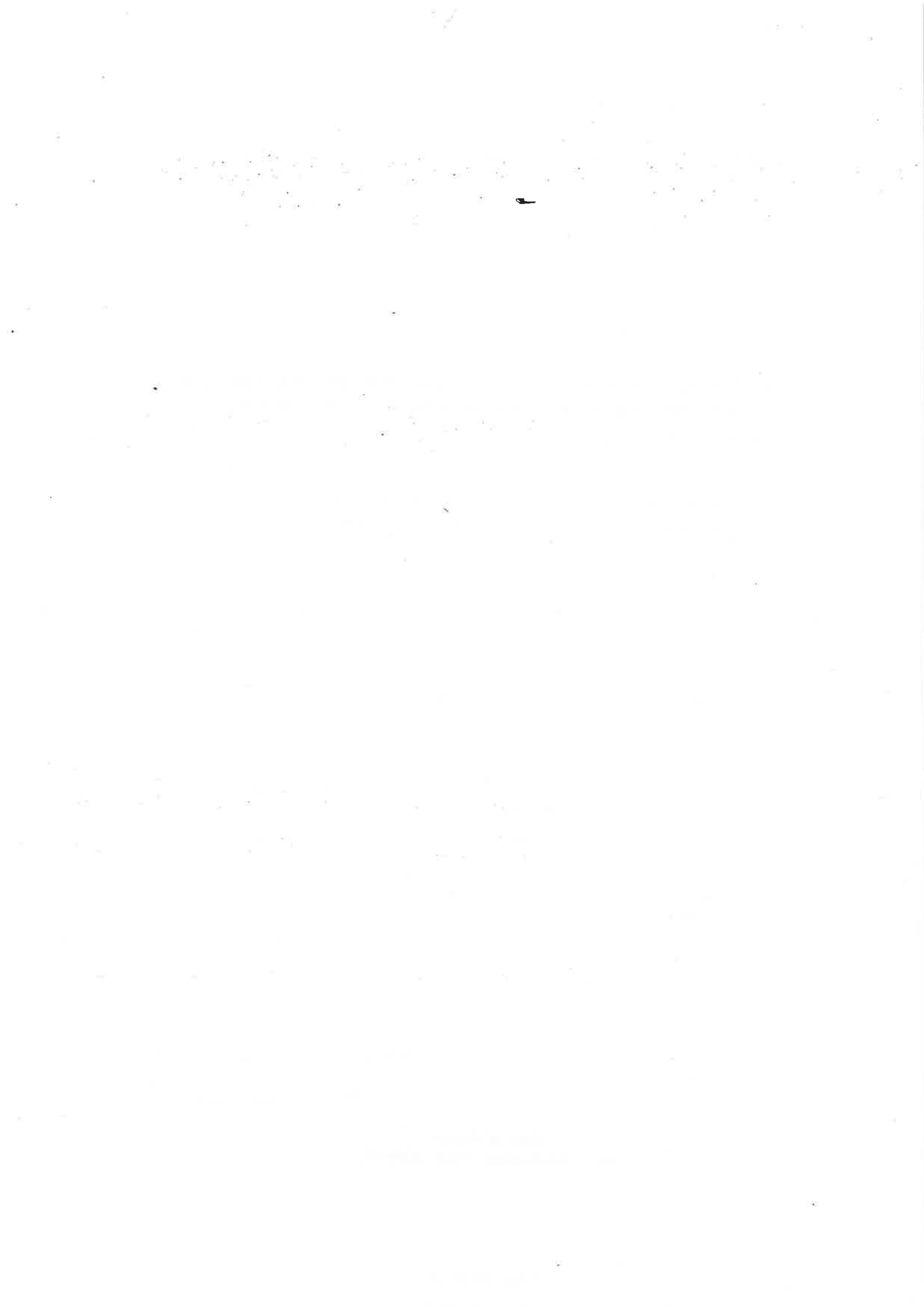
ANSWER KEY

YEAR   : 2019
LEVEL   : PRIMARY 6
SCHOOL   : RAFFLES GIRLS' PRIMARY SCHOOL
SUBJECT : MATHEMATICS
TERM   : SA 1

PAPER 1

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

Q16) 57

Q17) $9

Q18) 14.0

Q19) 1830

Q20) 27 pens

Q21) Lowest common multiplier: 3, 4
     2 x 3 x 4 = 24
     24 + 3 = <u>27 mugs</u>

Q22) $\frac{3}{4} - \frac{1}{8} = \frac{6}{8} - \frac{1}{8}$

$\qquad\qquad = \frac{5}{8}$

$\frac{5}{8} - \frac{1}{3} = \frac{15}{24} - \frac{8}{24}$

$$= \frac{7}{24}$$

Ans: $\frac{7}{24}$ kg

Q23) $7 \times 7 \times \frac{22}{7} \times \frac{3}{4} = 7 \times 11 \times \frac{3}{2}$

$$= 77 \times \frac{3}{2} \cdot$$

$$= \frac{231}{2}$$

$$= \underline{115.5 \text{ cm}^2}$$

Q24) 1m 20cm = 120cm

$120 \div 4 = \underline{30cm}$

Q25) 10 + 8 = 18

$27 \div 18 = 1.5$

2pm + 1.5hours = $\underline{15\ 30}$

Q26) $\frac{9}{10} \div \frac{1}{12} = \frac{9}{10} \times \frac{12}{1}$

$$= \frac{54}{5}$$

$$= 10 \frac{4}{5}$$

Ans: 10 cups

Q27) $42 \div 8 = 5 \text{ R2}$

$5 \times 3.55 = 17.75$

$2 \times 0.5 = 1$

$17.75 + 1 = \underline{\$18.75}$

Q28) $10 - 4 = 6$

$20 - 4 = 16$

$\frac{1}{2} \times 16 \times 6 = 8 \times 6$

$= 48$

$10 \times 20 = 200$

$200 - 48 = \underline{152cm^2}$

Q29) $180 - 90 = 90$

$90 \div 2 = 45$

$180 - 45 = 135\circ$

Q30) $110 \div 10 \times 3 = 33$

$33 - 30 = 3$

$3u = 120$

$1u = 120 \div 3$

$= 40$

$110u = 40 \times 110$

$= \underline{\$4400}$

PAPER 2

Q1a) $(w - 9) \div 2 = \frac{(w-9)}{2}$

Ans: $\$\frac{(w-9)}{2}$

Q1b) $35 = \frac{70}{2}$

$w - 9 = 70$

$w = 70 + 9$

$= \underline{\$79}$

Pg 3

Q2) $49 \times 2 = 98$

$\angle x = 180 - 98$

$\quad = 82$

$\angle a = 180 - 82$

$\quad = 98$

$\angle a + \angle b = 98 \times 2$

$\quad\quad = 196°$

Q3) $2u = 8$

$1u = 8 \div 2$

$\quad = 4$

$5u = 4 \times 5$

$\quad = 20$

$20 - 4 = \underline{16 \text{ years old}}$

Q4) $25 \times 4 = 100$

$100 - 54 = 46$

$46 \div 2 = \underline{23 \text{ kg}}$

Q5a) True

Q5b) Impossible to tell.

Q6) $1 + 2 + 3 + 4 + 5 + 6 = 21$

$21 \times 2 = 42$

$70 - 42 = 28$

$28 \div 7 = 4$

$4 + 2 + 2 + 2 = \underline{\$10}$

Q7) $\angle ABC = 180 - 42$

$\quad\quad = 138$

∠EAB = 180 − 138
       = 42
180 − 87 = 93
180 − 42 − 93 = <u>45°</u>

Q8) 180 − 88 = 92 (∠a + ∠b)
     180 − 48 = 132 (∠BAC + ∠BCA)
     132 − 92 = 40 (∠BAE + ∠BCE)
     40 ÷ 2 = <u>20°</u>

Q9) 26 − 2 − 2 = 22
     22 ÷ 2 = 11
     11 ÷ 2 = 5.5
     5.5 x 5.5 x 3.14 x 2 = 189.97
     11 x 11 x 3.14 = 379.94
     26 ÷ 2 = 13
     13 x 13 x 3.14 = 530.66
     530.66 − 379.94 = 150.72
     189.97 + 150.72 = <u>340.69cm^2</u>

Q10) 0.45 x 163 = 73.35
      95.35 − 73.35 = 22
      163 ÷ 35 = 4 R23
      22 ÷ 4 = <u>$5.50</u>

Q11a) 22 x 2 = 44
       22 x 44 x 9 = 8712
       10230 − 8712 = <u>1518cm^3</u>

Q11b) 1518 ÷ 2 x 3 = <u>2277cm^3</u>

Pg 5

Q12) 100% → 3480

25% → 3480 ÷ 4 = 870

75% → 870 x 3 = 2610

120% → 2610

1% → 2610 ÷ 120 = 21.75

100% → 21.75 x 100 = $2175

Q13) 25 x 2 = 50

14 x 2 = 28

$\frac{3}{4} + \frac{1}{2} = \frac{5}{4}$

$\frac{5}{4}$ x 14 x 2 x π = 35π

50 + 28 + 35π = (78 + 35π) cm

Q14a) 10 ÷ 2 = 5minutes

Q14b) In 1 minute: A → $\frac{1}{10}$

B → $\frac{2}{10}$

A + B → $\frac{3}{10}$

$1 ÷ \frac{3}{10} = 3\frac{1}{3}$

Ans: $3\frac{1}{3}$ minutes

Q15) $45 - 39 = 6$

$6 \times (850 \div 2) = 2550$

$12\ 210 - 2550 = 9660$

$45 + 39 = 84$

$9660 \div 84 = 115$

$850 \div 2 = 425$

$425 - 115 = 310$

$310 \times 39 = 12\ 090$

$\approx \underline{\$12\ 100}$

Q16a) $\frac{3}{5} \times \frac{3}{4} = \frac{9}{20}$

Ans: $\frac{9}{20}$ of the muffins

Q16b) Banana: $\frac{3}{5}$

$\frac{9}{20}$ eaten, $\frac{3}{20}$ left

Walnut: $\frac{2}{5}$

252 old folks home, $\frac{5}{20} - \frac{3}{20} = \frac{1}{10}$ left

$\frac{2}{5} - \frac{1}{10} = \frac{3}{10} \rightarrow 252$

$\frac{1}{10} \rightarrow 252 \div 3 = 84$

$\frac{10}{10} \rightarrow 84 \times 10 = \underline{840\ \text{muffins}}$

Pg 7

Q17a) $12 \div 4 = 3$

$3 \times 3 = 9$

$12 \div 3 = 4$

$4 \times 2 = 8$

Orange	:	Apples
Ans: 9 : 8

Q17b) Orange : Apples : French melon

9 : 8 : 3

$8 \div 4 = 2$

$2 \times 3 = 6$

$9 \div 3 = 3$

$3 \times 2 = 6$

$3 \times 9 = 27$

$6 + 6 + 27 = 39$

$936 \div 39 = 24$

$8 + 9 + 3 = 20$

$20 \times 24 = \underline{480 \text{ fruits}}$

END

pg 8.