

Math Teacher:



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

Name: _____ ()

Form Class: P6 _____

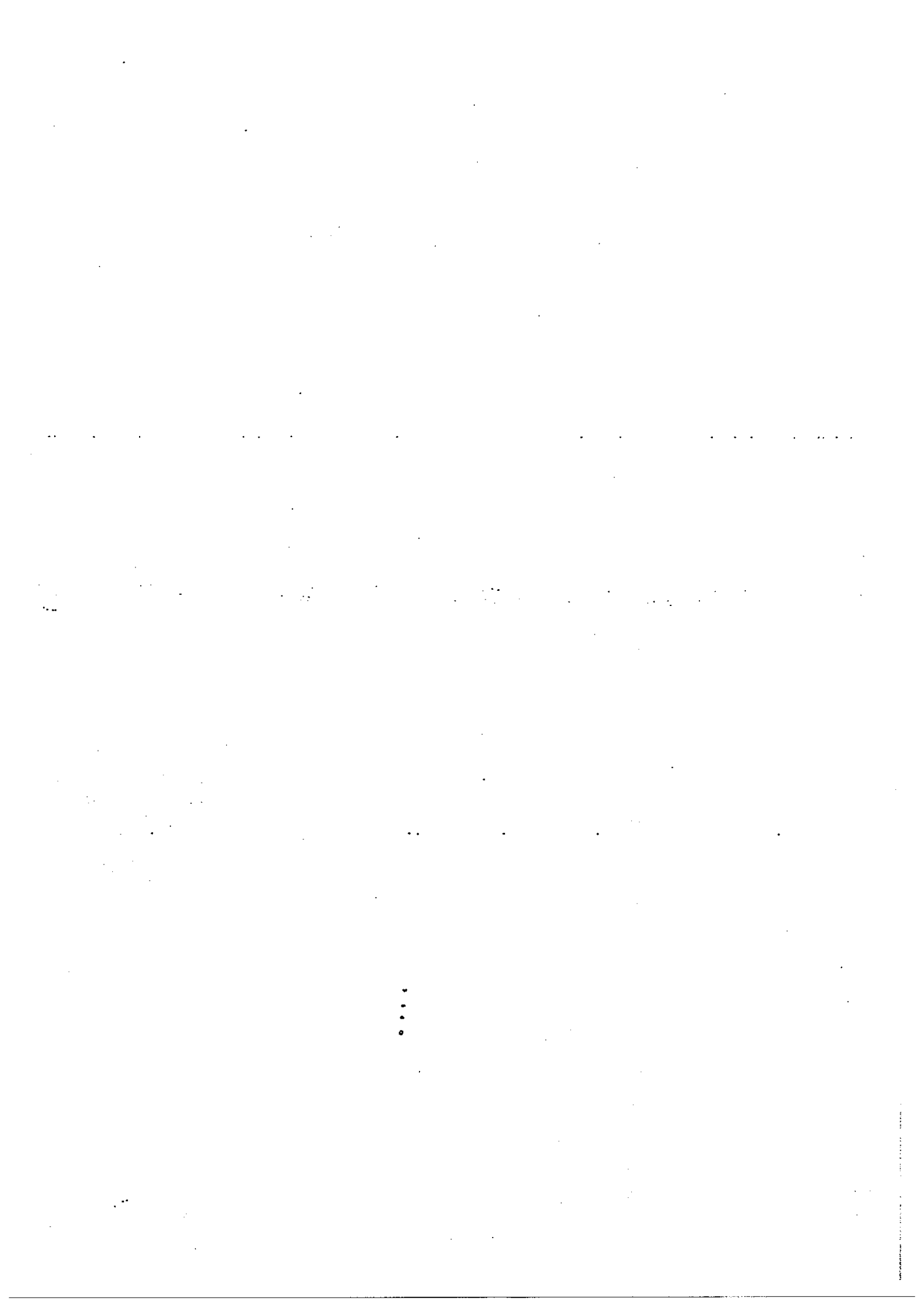
Date: 9 May 2012

Duration: 50 min

Your Score (Out of 100 marks)			
Your Score (Out of 40 marks)			
		Banded Math Class	Level
PAPER 1 (40%)	Highest Score		
	Average Score		
TOTAL (100%)	Highest		
	Average Score		
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.



SECTION A (20 marks)

Questions 1 to 10 carry 1 mark each. Question 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.

1. In the numeral 3 891 457, the value of digit 8 is _____.

- (1) 8 x 100
- (2) 8 x 1 000
- (3) 8 x 10 000
- (4) 8 x 100 000

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2. Arrange the fractions $\frac{1}{2}, \frac{3}{4}, \frac{4}{5}$ in descending order.

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

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

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

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

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3. Sumathi has a roll of ribbon which is 5 m long. What is the maximum number of 30-cm pieces that she can cut from it?

- (1) 16
- (2) 17
- (3) 150
- (4) 168

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4. What is the value of $(100 - 8p) \div 4$ when $p = 5$?

- (1) 15
- (2) 23
- (3) 25
- (4) 90

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5. An apple cost \$0.50, an orange cost \$0.40 and a lemon cost \$0.35. Find the ratio of the cost of the apple to the cost of the orange to the cost of the lemon. Express your answer in its simplest form.

- (1) 5 : 4 : 3
- (2) 5 : 4 : 35
- (3) 10 : 8 : 7
- (4) 50 : 40 : 35

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6. Express $7\frac{5}{8}$ as an improper fraction.

- (1) $\frac{20}{8}$
- (2) $\frac{43}{8}$
- (3) $\frac{56}{8}$
- (4) $\frac{61}{8}$

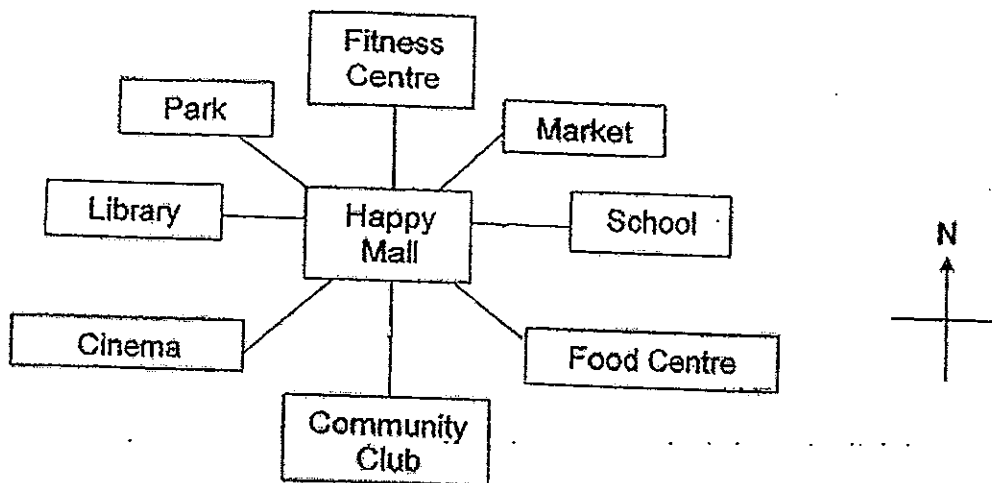
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7. Which one of the following is the same as $7\frac{3}{8}$ km?

- (1) 7.375 m
- (2) 73.75 m
- (3) 737.5 m
- (4) 7375 m

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8. The diagram below shows the different landmarks in Town Y.



John is standing at Happy Mall and is facing the market.
 He turns 135° in a clockwise direction.
 Where is he facing now?

- (1) Park
- (2) Library
- (3) Food Centre
- (4) Community Club

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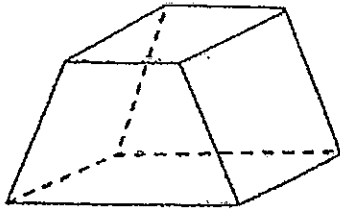
9. Simplify $10k + 12 - 3k + k - 5$.

- (1) $6k + 7$
- (2) $6k + 17$
- (3) $8k + 7$
- (4) $8k + 17$

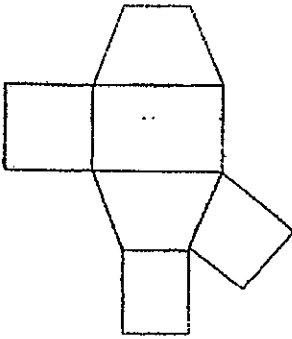
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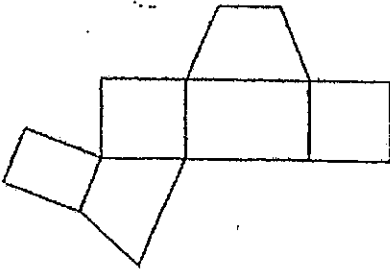
10. Which one of the following is a net of the solid shown?



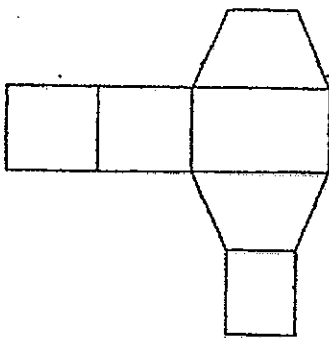
(1)



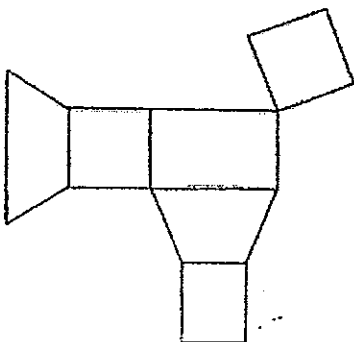
(2)



(3)



(4)



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11. Lucy took 3h to travel from City X to City Y at 60 km/h.
George took 2h to travel from City Y to City X.
Find George's average speed.

- (1) 40 km/h
- (2) 90 km/h
- (3) 120 km/h
- (4) 180 km/h

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12. Add up all the even numbers between 1 and 23.
What is the digit in the tens place of the sum?

- (1) 1
- (2) 2
- (3) 3
- (4) 0

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13. Li Min had 35 stickers. Her brother had 28 stickers.
Express the number of stickers Li Min had as a percentage of the
number of stickers her brother had.

- (1) 20%
- (2) $55\frac{5}{9}\%$
- (3) 80%
- (4) 125%

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14. The amount of money Sue had was $2\frac{1}{2}$ times that of Winnie's.
Express the amount of money Winnie had as a percentage of the
amount of money Sue had.

- (1) $28\frac{4}{7}\%$
- (2) 40%
- (3) 60%
- (4) 250%

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15. Sally bought 72 beads from the shopping mall.
She wanted to pack all the beads equally into packets.
She wanted to have at least 4 packets and also at least 3 beads in
each packet. How many different ways can she pack her beads?

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SECTION B (20 marks)

Questions 16 to 25 carry 1 mark each. Questions 26 to 30 carry 2 marks 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.
Answers in fractions or ratio must be expressed in the simplest form.

16. Use the digits below to form the largest odd number.
Each digit can only be used once.

0, 2, 5, 6, 7

Ans: _____

17. Find the value of $87 + (43 - 22) \div 7 - 6 \times 8$.

Ans: _____

18. $\frac{1}{2}$ of A is equal to $\frac{3}{4}$ of B.

Express B as a fraction of A in the simplest form.

Ans: _____

19. Mrs Lim had $4\frac{1}{2}$ kg of sugar. She used $1\frac{3}{5}$ kg of sugar to bake a cake.

How much sugar had she left?

Leave your answer as a mixed number in the simplest form.

Ans: _____ kg

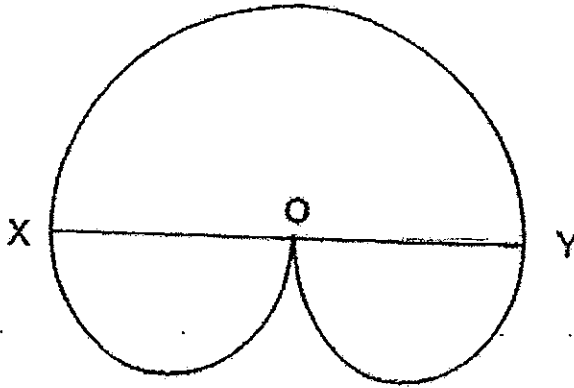
20. Express $3\frac{4}{7}$ as a decimal correct to 1 decimal place.

Ans: _____

21. Express 20 030 cm in metres and centimetres.

Ans: _____ m _____ cm

22. The figure below, not drawn to scale, is made up of 3 semicircles.
 Given that $OX = OY$ and XY is a straight line measuring 14 cm,
 find the perimeter of the figure. (Take $\pi = \frac{22}{7}$)



Ans: _____ cm

23. Vivian is k years old.
 Richard is three times as old as Vivian but he is 2 years older than Ahmad.
 Express Ahmad's age in terms of k .

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•

Ans: _____ years old

24. The table below shows the charges for two game stalls at the amusement park.

	Ring Over Blocks	Froggit
Charges per Adult	\$3	\$3
Charges per Child	\$2	\$1

Mr and Mrs Lim took their child to the amusement park.
Each of them played all the games only once.

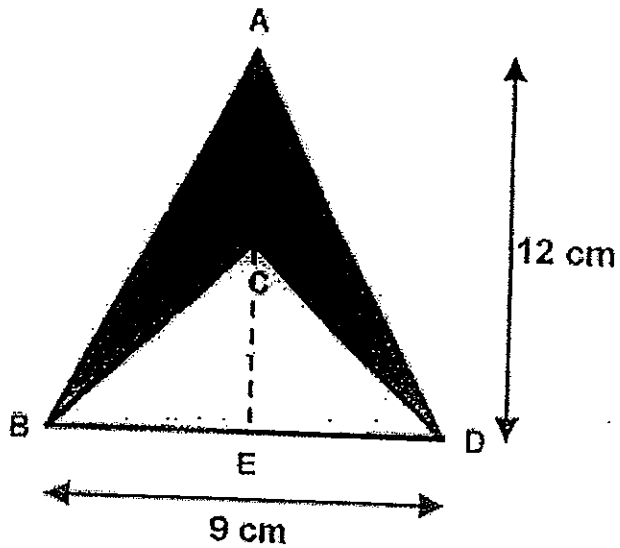
What was the average spending of the 3 people at the amusement park?

Ans: \$ _____

25. Ali completed his homework at 1.20 p.m.
He took $2\frac{1}{2}$ hours to complete his homework.
What time did he start? Give your answer in 12-hour clock.

Ans: _____

26. In the figure below, not drawn to scale, $AB = AD$, $BC = CD$ and $AC = CE$. Given that BD is perpendicular to AE , find the area of the shaded part $ABCD$.



Ans: _____ cm^2

27. Susan bought 3 identical books and 6 identical pens. If she had bought 4 such books and 7 such pens, it would cost her \$15 more. If each pen cost \$7 less than each book, what was the price of one book?

Ans: \$ _____

28. Susie spent $\frac{3}{7}$ of the sum of money she had on a watch and $\frac{1}{4}$ of the remainder on a handbag. If she had \$390 left, how much money did she have at first?

Ans. \$ _____

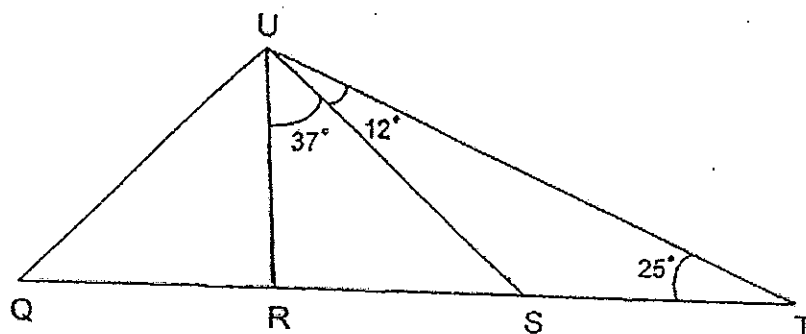
29. The rates for photocopying services at a bookshop are shown in the table below.

Number of pages	Cost per page
First 50 pages	\$0.08
Subsequent pages	\$0.05

How much does it cost for Mrs Lim to photocopy 150 pages?

Ans: \$ _____

30. The figure below is not drawn to scale.
QR = RS = ST. Find $\angle UQR$.



Ans: _____

Setters: Mr Desmond Lee, Ms Lee SK, Ms Wai SH



Math Teacher:



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

Name: _____ ()

Form class: P6 _____

Date: 9 May 2012

Duration: 1 h 40 min

Your Score (Out of 60 marks)		
	Banded Math Class	Level
Highest Score		
Average Score		

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
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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 unless otherwise stated. (10 marks)

1. The ratio of the amount of money Jane had to the amount of money Kathy had was 3 : 1. Jane had \$200 more than Kathy. How much must Kathy give to Jane so that the ratio of the amount of money Jane had to the amount of money Kathy had becomes 7 : 1?

Ans: \$ _____ [2]

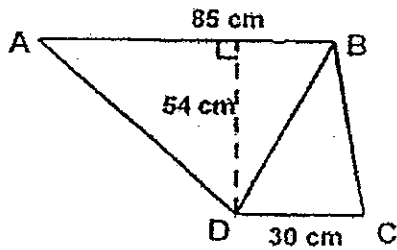
2. Belle had \$63.60 at first. She bought 7 papayas at \$3a each. How much money had she left?

Ans: \$ _____ [2]

3. Mr Lim travelled from Town P towards Town Q at an average speed of 60 km/h during the first 3 hours of his journey. Then he travelled another 360 km to reach Town Q. What was the distance between Town P and Town Q?

Ans: _____ km [2]

4. In the figure below, not drawn to scale, ABCD is a trapezium. Given that $AB \parallel DC$, find the area of triangle BCD.



Ans: _____ cm² [2]

5. For her Science examinations, Lyna scored 84 marks for mid-year and 60 marks for final year. What was the percentage decrease in her scores?

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Ans: _____ % [2]

For questions 6 to 18, show your working clearly in the space provided for each question and write your answers in the spaces provided. All diagrams are not drawn to scale unless otherwise stated.

The number of marks available is shown in the brackets [] at the end of each question or part-question. (50 marks)

6. Jolene and Stella save \$7800 altogether.

Jolene's savings is $\frac{3}{5}$ of Stella's savings. How much does Stella save?

Ans: _____ [3]

7. The table below shows the number of muffins sold in a week.

Day	Number of Muffins Sold
Monday to Friday	$3d$ per day
Saturday	$d + 18$
Sunday	$3d - 2$

(a) Find the total number of muffins sold in the week.
Express your answer in terms of d .

(b) Given that $d = 80$, find the total number of muffins sold over the weekend.

Ans: (a) _____ [2]

(b) _____ [1]

8. Observe the pattern in the table below :

	Column 1	Column 2	Column 3	Column 4	Column 5	Column 77
Row 1	1	2	5	10	(a) (ii) ___		(b) ___
Row 2	4	3	6	11			
Row 3	9	8	7	12			
Row 4	16	15	14	13			
Row 5	(a) (i) ___						
⋮							
⋮							
⋮							
Row 77							

(a) Find the values of (i) and (ii).

(b) What is the first number (Row 1) in Column 77?

Ans: (a) (i) _____ [1] (ii) _____ [1]

(b) _____ [2]

9. Pears were sold in packets of 12 and each packet cost \$7. William had \$240. What was the maximum number of pears he could buy?

Ans: _____ [3]

10. To prepare iced lemon tea, Mrs Soh had to mix black tea, lemon juice and sugar syrup in the ratio 40 : 2 : 3.
If she used 1 litre of black tea, what would be the total amount of lemon juice and sugar syrup needed? Express your answer in *ml*.

Ans: _____ [3]

11. At first, Ashley had 550 marbles altogether. There were $\frac{3}{8}$ as many blue marbles as yellow marbles. Later, she bought some blue marbles. For every 4 yellow marbles she had, her father gave her 25 more yellow marbles. The total number of yellow marbles then became $1\frac{2}{3}$ times that of the blue marbles. How many blue marbles did she have in the end?

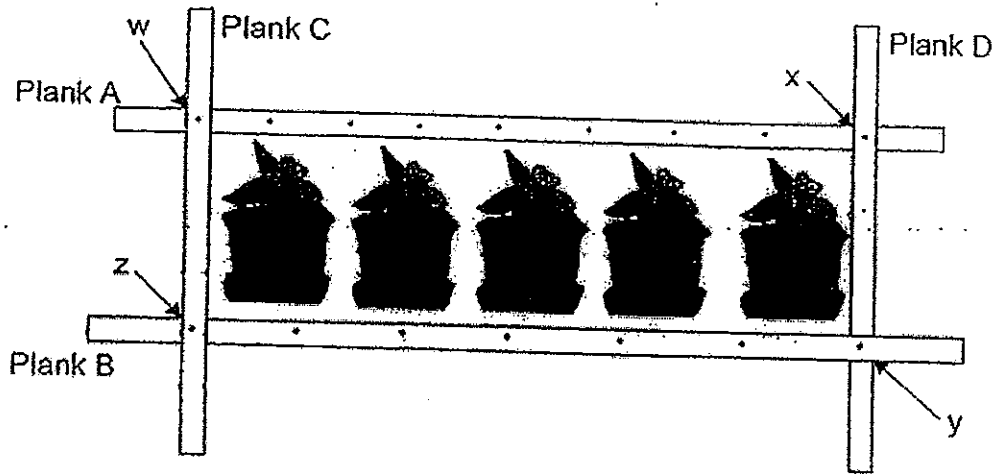
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Ans: _____ [3]

12. Town Lala and Town Yaya are 840 km apart.
At 8.30 a.m., a car left Town Lala for Town Yaya, travelling at a constant speed.
At the same time, a lorry set off from Town Yaya for Town Lala at a constant speed too. At 1.30 p.m., the two vehicles passed each other.
If the speed of the car was 24 km/h faster than the lorry, find the speed of the car.

Ans: _____ [4]

13. Ali went to a gardening D.I.Y. store to purchase 4 wooden planks A, B, C and D with pre-drilled holes on them.
 Plank A had 9 holes which divided it into 10 equal parts.
 Plank B had 7 holes which divided it into 8 equal parts.
 Ali assembled the planks together to form a rectangular border for his potted plants. The holes at w , x , y and z formed the 4 corners of the rectangle.
 If Plank A is 360 cm long, find the length of Plank B.



Ans: _____ [4]

14. There are 4 adults. Each time, two adults are weighed, giving a total of 6 readings, in kilograms as listed below:

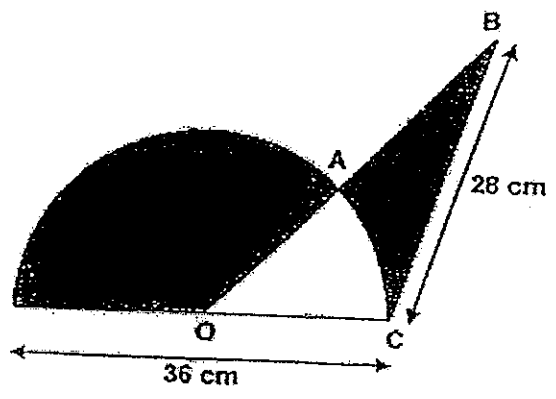
103.5, 111, 112.5, 117, 118, 122

What is the average mass of the 4 adults?

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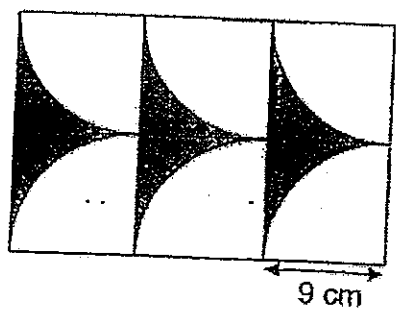
Ans: _____ [4]

15. (a) The diagram below is made up of a semicircle and a triangle OBC. Given that $OA = AB$, find the perimeter of the shaded parts in terms of π .



Ans: (a) _____ [3]

- (b) The diagram below shows a pattern that is made up of identical squares and quadrants. Find the total shaded area. (Take $\pi = 3.14$)



Ans: (b) _____ [2]

16. Lynette had a total of 8000 gold, silver and bronze beads at first. 30% of them were gold and 35% of the remainder were silver.

She sold $\frac{1}{4}$ of the gold beads and $\frac{2}{5}$ of the bronze beads.

How many beads had she left?

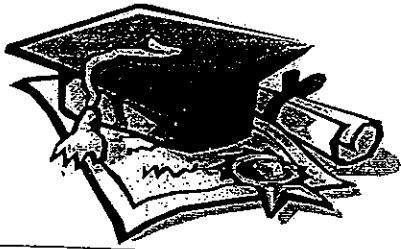
Ans: _____ [5]

17. Mr Lee sold 15% of his cupcakes on Monday.
He sold 90 fewer cupcakes on Tuesday than on Monday.
He then sold 70 fewer cupcakes on Wednesday than on Tuesday.
On Thursday, he sold 330 cupcakes and found that he had half of his original number of cupcakes left.
How many cupcakes did he sell altogether?

Ans: _____ [5]

18. There are some red and green beans in a container.
If Ahmad removes 20 red beans, the ratio of the number of red beans to the number of green beans becomes 6 : 5.
If Ahmad removes 10 green beans, the ratio of the number of red beans to the number of green beans becomes 4 : 3.
How many beans are there in the container?

Ans: _____ [4]



ANSWER SHEET

EXAM PAPER 2012

SCHOOL : RAFFLES GIRLS'
SUBJECT : PRIMARY 6 MATHEMATICS

TERM : SA1

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

16)76205

17)42

18) $2/3$

19) $29/10\text{kg}$

20)3.6

21)200m 30cm

22)44cm

23) $(3k-2)$

24)\$5

25)10.50

26)27cm²

27)\$11

28)\$910

29)\$9

30)53°

Paper 2

1) $3 : 1 = 6 : 2$

$6 - 2 = 4$

$200 \div 4 = \$50$

2) $3a \times 7 = 21a$

Ans: $\$(63.60 - 21a)$

3) $60 \times 3 = 180$

$180 + 360 = 540\text{km}$

4) $30 \times 54 \div 2 = 810\text{cm}^2$

5) $84 - 60 = 24$

$24/84 \times 100\% = 200/7\% = 28\frac{4}{7}\%$

6) $3 + 5 = 8$

$7800 \div 8 = 975$

$975 \times 5 = 4875$

7)a) $3d \times 5 = 15d$
 $15d + d + 18 + 3d - 2$
 $= (19d + 16)\text{muffins}$

b) $d + 18 + 3d - 2$
 $= 4d + 16$ (weekend)
 $4 \times 80 = 320$
 $320 + 16 = 336$ muffins

8)a)i) $5 \times 5 = 25$ ii) $16 + 1 = 17$

b) $77 + 76 = 153$
 $77 \times 77 = 5929$
 $5929 - 153 = 5776$
 $5776 + 1 = 5777$

9) $12 \times 7 = 84$
 $240 \div 7 = 34r2$
 $34 \times 12 = 408$ pears.

10) $1L = 1000ml$
 $1000 \div 40 = 25$
 $2 + 3 = 5$
 $25 \times 5 = 125ml$

11) $3 + 8 = 11$
 $550 \div 11 = 50$
 $50 \times 3 = 150$ (B)
 $50 \times 8 = 400$ (Y)
 $400 \div 4 = 100$
 $100 \times 25 = 2500$
 $2500 + 400 = 2900$ (y aft)
 $1\frac{2}{3} = 5/3$
 $2900 \div 5 = 580$
 $580 \times 3 = 1740$ marbles.

12) $24 \times 5 = 120$
 $840 - 120 = 720$
 $720 \div 2 = 360$
 $360 + 120 = 480$
 $480 \div 5 = 96km/h$

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$$13) 360 \div 10 = 36$$

$$36 \times 8 = 288$$

$$288 \div 6 = 48 \text{ (1 part of B)}$$

$$48 \times 8 = 384 \text{ cm}$$

$$14) 2 \times 6 = 12$$

$$103.5 + 111 + 112.5 + 117 + 118 + 112 = 684$$

$$684 \div 12 = 57$$

$$15) a) 36 \div 2 = 18$$

$$(\pi \times 2 \times 18) \div 2 = 18\pi$$

$$36 + 18 + 28 = 82$$

$$(82 + 18\pi) \text{ cm}$$

$$b) (3.14 \times 9 \times 9) \div 4 = 63.585$$

$$9 \times 9 = 81$$

$$81 - 63.585 = 17.415$$

$$17.415 \times 6 = 104.49 \text{ cm}^2$$

$$16) 30\% = 3/10 = 60/200 \text{ (G)}$$

$$35\% = 7/20$$

$$1 - 3/10 = 7/10$$

$$7/10 \times 7/20 = 49/200 \text{ (S)}$$

$$8000 \div 200 = 40 \text{ (1/200)}$$

$$60 \div 4 = 15$$

$$15 \times 40 = 600 \text{ (sold)(G)}$$

$$200 - 49 - 60 = 91 \text{ (B)}$$

$$40 \times 91 = 3640$$

$$3640 \div 5 = 728$$

$$728 \times 2 = 1456 \text{ (sold)(B)}$$

$$8000 - 1456 - 600 = 5944 \text{ (left)}$$

17) $15\% = 3/20$

$20 \div 2 = 10 (1/2)$

$M \rightarrow 3u$

$T \rightarrow 3u - 90$

$W \rightarrow 3u - 160$

$Th \rightarrow 330$

$Left \rightarrow 10u$

$160 + 90 = 250$

$330 - 250 = 80$

$10u - 3u - 3u - 3u = 1u$

$80 \times 10 = 800 (10u)$

18) $60 + 40 = 100$

$20 - 18 = 2$

$100 \div 2 = 50$

$6 + 5 = 11$

$50 \times 11 = 550$

$550 + 20 = 570 \text{ beans.}$

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