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

Name: _____ ( )

Form Class: P6 _____ Banded Math Class: P6 _____

Date: 9 May 2013 Duration: 50 min

Your Score	
Paper 1 (Out of 40 marks)	
Paper 2 (Out of 60 marks)	
Overall (Out of 100 marks)	

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.

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1. In 691 400, the value of the digit 9 is _____.

   (1) 90

   (2) 900

   (3) 9 000

   (4) 90 000

2. Arrange the following fractions in ascending order.

$$\frac{4}{7}, \frac{1}{4}, \frac{5}{11}$$

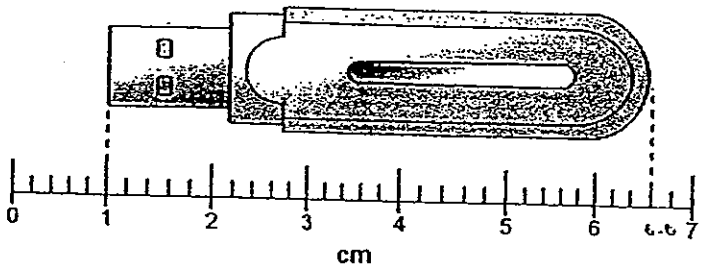
   (1) $\frac{5}{11}, \frac{4}{7}, \frac{1}{4}$

   (2) $\frac{4}{7}, \frac{5}{11}, \frac{1}{4}$

   (3) $\frac{1}{4}, \frac{4}{7}, \frac{5}{11}$

   (4) $\frac{1}{4}, \frac{5}{11}, \frac{4}{7}$

3. What is the length of the thumb drive as shown in the figure below?



(1) 5.3 cm

(2) 5.6 cm

(3) 6.3 cm

(4) 6.6 cm

4. The cost of sending a parcel overseas is $\$(0.02p + 8)$, where p is the mass of the parcel in grams. What is the cost of sending a parcel that weighs 500g?

(1) $8.10

(2) $10

(3) $10.80

(4) $18

5. In a class of 40 pupils, 21 pupils were boys.
What was the ratio of the number of boys to the number of girls?

(1) 19 : 21

(2) 19 : 40

(3) 21 : 19

(4) 21 : 40

6. Which of the following fractions is smaller than $2\frac{1}{3}$?

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

(2) $\frac{15}{6}$

(3) $\frac{21}{9}$

(4) $\frac{27}{12}$

7. Express $1\frac{3}{4}$ as a decimal.

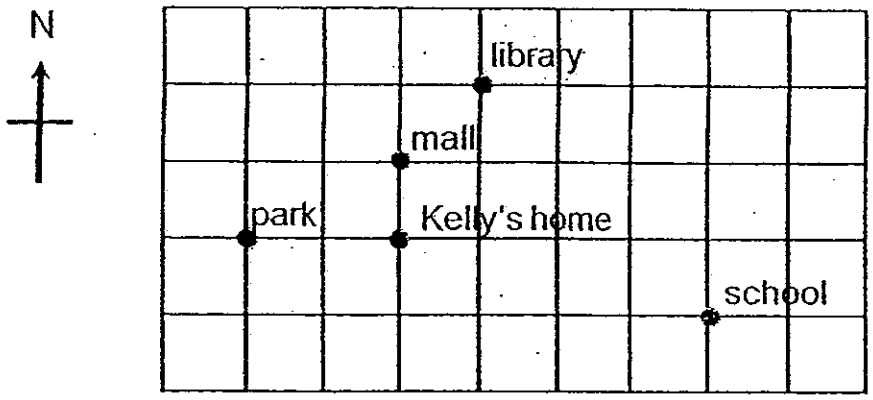
(1) 1.75

(2) 1.68

(3) 1.60

(4) 1.34

8. Study the diagram below. Which of the following statements is correct?



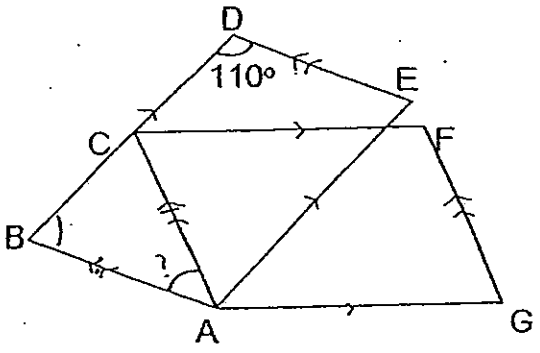
(1) The mall is west of the park.

(2) The library is north of Kelly's home.

(3) The school is north-east of the library.

(4) Kelly's home is south-west of the library.

9. The figure below shows 2 identical parallelograms, ABDE and ACFG. BCD is a straight line and $\angle BDE$ is 110°. Find $\angle CAB$.



(1) 35°

(2) 40°

(3) 55°

(4) 70°

10. Express 2.4 m as a percentage of 60 cm.

(1) 2500%

(2) 400%

(3) 25%

(4) 4%

11. At first, there were 95 apples and oranges altogether at the fruit store. After $\frac{1}{4}$ of the apples and 15 of the oranges were sold, there were thrice as many apples as oranges left. How many more apples than oranges were sold?

(1) 1

(2) 16

(3) 31

(4) 4

12. 2 tens, 3 hundredths and 4 thousandths is _____.

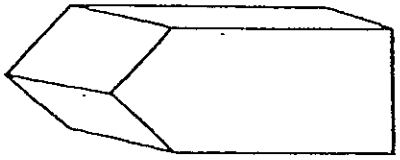
(1) 20.034

(2) 20.340

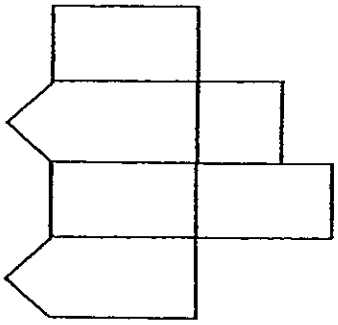
(3) 23.004

(4) 23.040

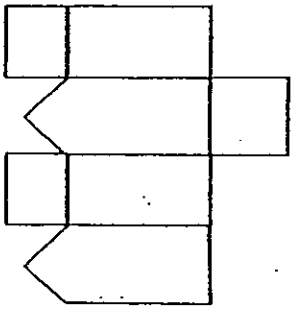
13. Identify the correct net for the figure shown below.



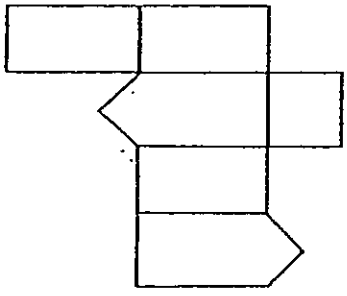
(1)



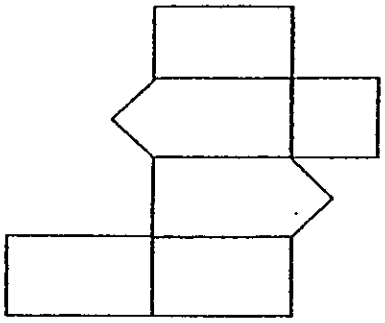
(2)



(3)



(4)



14. Kenny always spends 80% of his allowance and saves the rest. If he increases his spending by 10%, his spending will increase by $16. How much is Kenny's allowance?

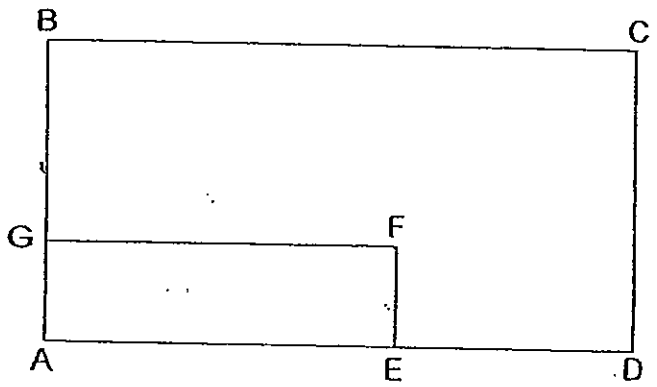
(1) $40

(2) $160

(3) $200

(4) $8000

15. The figure below is made up of 2 rectangles.



The ratio of the length AE : AD is 3 : 5 and the length of AG : AB is 1 : 3.
What is the ratio of the area of rectangle AGFE to the area of rectangle ABCD?

(1) 1 : 2

(2) 2 : 1

(3) 1 : 5

(4) 5 : 1

( )

SECTION B (20 marks)

Questions 16 to 25 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. Answers in fractions or ratio must be expressed in the simplest form. .

16. What is the difference between the largest and smallest possible 4-digit whole numbers that can be formed using the digits 4, 3, 9, 1?
For each number, each digit can only be used once.

Ans: _____

17. Find the value of $100 - 20 \div 2 \times 4$.

Ans: _____

18. Alicia made 48 cupcakes. She gave away $\frac{3}{8}$ of them.
How many cupcakes had she left?

Ans: _____

19. Find the value of $\frac{3}{4} + \frac{5}{6}$ Express the answer as a mixed number in the simplest form.

Ans: _____

20. Express $3\frac{1}{40}$ as a decimal.

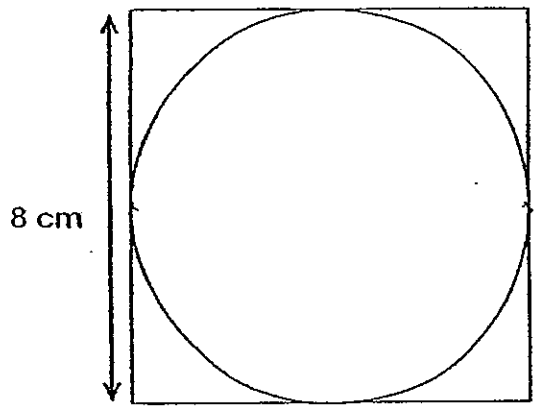
Ans: _____

21. What is 4 km 4 m in kilometres?

Ans: _____ km

22. The figure below is made up of a square and a circle.

Find the circumference of the circle. (Take π as 3.14)



Ans: _____ cm

23. Miss Lim bought 6 pizzas. $\frac{2}{3}$ of the pizzas were shared by 4 girls equally.

What fraction of all the pizzas did each girl receive?

Ans: _____

24. The table below shows record of Megan's mass over 4 months.

	September	October	November	December	Average
Mass	62 kg	55 kg	?	58 kg	57 kg

What was Megan's mass for November?

Ans: _____kg

25. Mr and Mrs Tan watched a performance which was 1 hour and 35 minutes long. It ended at 9.20 p.m..

What time did the performance start? Give your answer in 12-hour clock.

Ans: _____

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 space 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.

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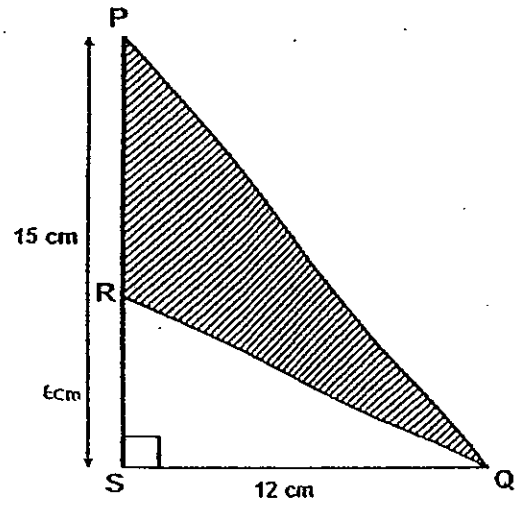
26. In the figure below, PRS is a straight line and SQ is twice as long as RS. What is the area of triangle PQR?



Ans: _____ cm^2

27. Find the sum of all the whole numbers from 1 to 120.

Ans: _____

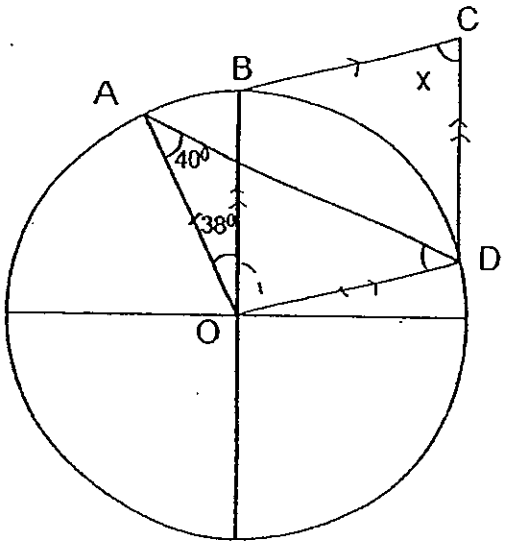
28. Betty is $(5y + 1)$ years old. Abby is 4 years older. What will be their total age in 6 years' time?

Ans: _____years old

29. At a supermarket, the oranges were either sold at 55 cents each or in bags of 4 at $2 per bag. Miss Tan bought exactly 35 oranges.
What was the least amount of money Miss Tan spent on the oranges?

Ans: $_____

30. In the figure shown below, OBCD is a rhombus and O is the centre of the circle. Given $\angle AOB$ is $38°$ and $\angle OAD$ is $40°$, find $\angle x$.



Ans: _____ °

End of Paper-
☺ Please check your work carefully ☺

Setters: Mrs. Jacqueline Seto
Mr. Ho Kai Huat
Mr. Ronald Lee

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

Name: _____ ( )

Form class: P6 _____ Banded Math Class: P6 _____

Date: 9 May 2013 Duration: 1 h 40 min

Your Score (Out of 60 marks)	

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.
Figures are not drawn to scale.
For questions which require units, give your answers in the units stated. (10 marks)

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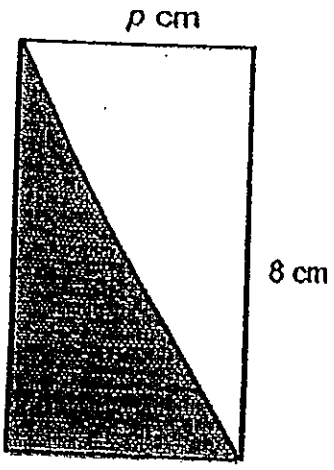
1. Alicia bought some marbles from a shop.
The number of red marbles is thrice as many as the number of blue marbles.
The number of blue marbles is twice as many as the number of green marbles.
What is the ratio of the number of red marbles to the number of green marbles?

Ans: _____ [2]

2. Find the area of the shaded part.



Ans: _____ _____ cm^2 [2]

3. Eddy takes $\frac{1}{3}$ hour to walk to his school at an average speed of 4.5 km/h. If he increases his speed by 1.5 km/h, how long will he take to walk to school?

Ans: _____ h [2]

4. A baker decorated 6 identical cakes with 72 strawberries.
How many cakes could he decorate with 180 strawberries?

Ans: _____ [2]

5. The price of a leather sofa, inclusive of 7% GST, is $1618.91.
What is the price of the leather sofa before GST?

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. Figures are not drawn to scale. The number of marks available is shown in the brackets [ ] at the end of each question or part-question. (50 marks)

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6. At first, Jolly had $\frac{5}{8}$ of the number of stickers Kelly had. When Kelly gave 36 stickers to Jolly, both had the same number of stickers.

   (a) How many more stickers did Kelly have than Jolly at first?

   (b) How many stickers were there altogether?

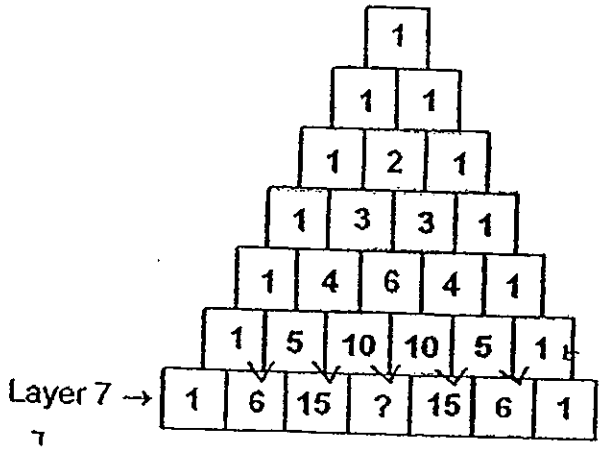
Ans: (a) _____ [1]

(b) _____ [2]

7. Gillian had 3 types of coins, 10¢, 20¢ and 50¢. The ratio of the number of 10¢ coins to the number of 20¢ coins to the number of 50¢ coins is 2 : 5 : n.
   If the value of all her 10¢ coins is $12, express the number of 50¢ coins she had in terms of n.

Ans: _____ [3]

8. The number patterns below shows the top 7 layers of a pyramid.

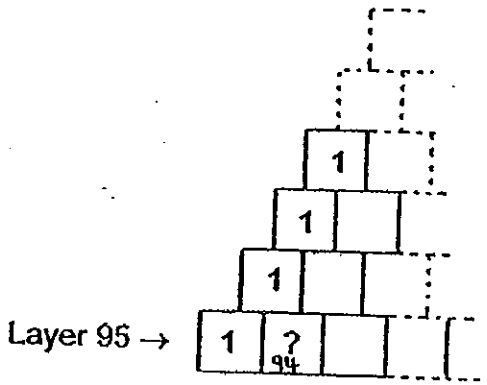


(a)

a) What is the missing number in Layer 7?

(b) How many numbers are there in Layer 25?

(c) The figure below shows part of the pyramid with Layer 95.



What is the second number in Layer 95?

Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [1]

9. Adeline went shopping with a sum of money. She spent all of her money in 2 stores. In each store, she spent $18 more than half of what she had when she entered the store.

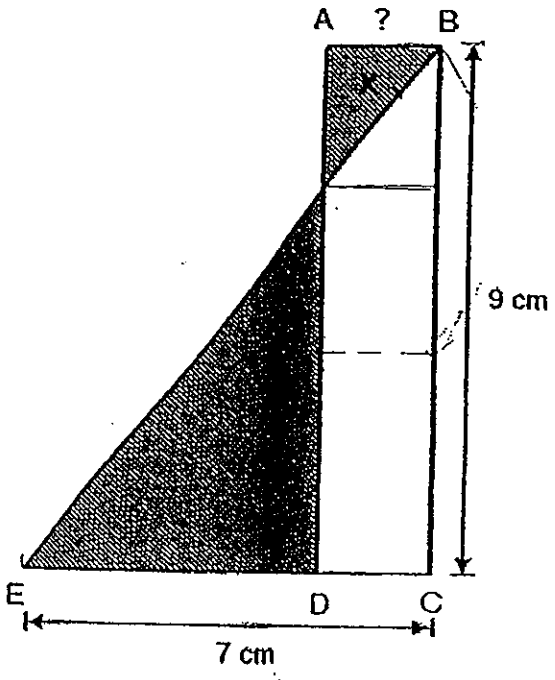
(a) How much did she spend at the second store?

(b) How much money did she have at first?

Ans: (a) _____ [1]

(b) _____ [2]

10. In the figure, ABCD is a rectangle and BCE is a triangle.
BC = 9 cm and CE = 7 cm. Shaded area X is 13.5 cm^2 smaller than shaded area Y.
What is the length of AB?



Ans: _____ [3]

11. Jane bought a total of 55 cupcakes and mini buns for a party.
Each cupcake cost $3.60 and each mini bun cost $1.40.
Jane spent a total of $151.80. How many cupcakes did Jane buy?

Ans: _____ [4]

12. $\frac{3}{5}$ of the pupils at a camp were girls. After 12 girls and 4 boys left the camp, the ratio of the number of girls to the number of boys became 4 : 3.
How many pupils were at the camp at first?

Ans: _____ [4]

13. Sue spent $153.15 on some key chains and bookmarks at a gift shop.
A bookmark cost $3.80 and a key chain cost $5.35.
Sue bought 9 fewer key chains than bookmarks.
How many key chains and bookmarks did she buy altogether?

Ans: _____ [4]

14. At 8.30 a.m., a motorcycle left Town A for Town B travelling at 60 km/h.

$1\frac{1}{2}$ hour later, a car left Town A travelling at 85 km/h.

The car overtook the motorcycle midway between Town A and Town B, and reached Town B first.

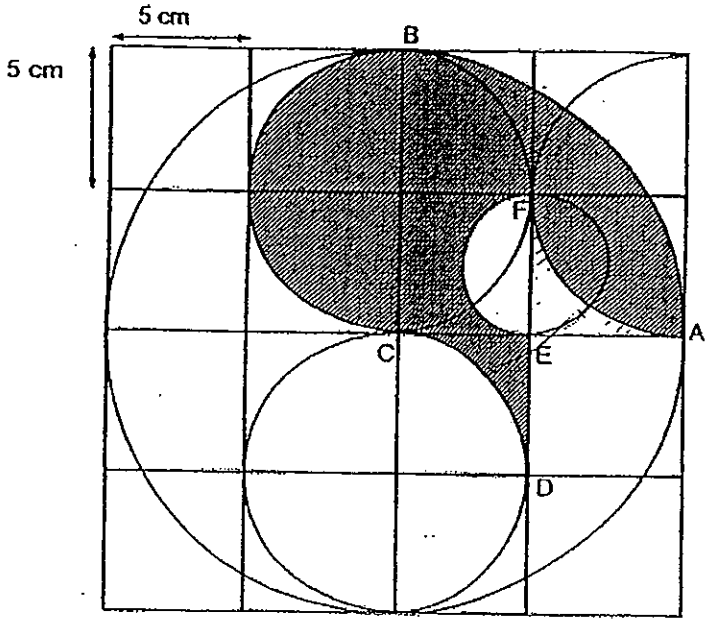
(a) Find the distance covered by the motorcycle when the car left Town A.

(b) What was the distance between Town A & Town B?

Ans: (a) _____ [1]

(b) _____ [3]

15. Look at the figure below. Find the total area of the shaded parts. Give your answer correct to 2 decimal places.



Ans: _____ [5]

16. 40% of the people who joined a newly opened fitness club were female.
After one year, the number of female members decreased by 20% and the number of male members increased by 45%
In the end, the fitness club had 228 more members than a year ago.
What was the difference between the number of male and female members at first?

Ans: _____ [4]

17. At a shop, $\frac{3}{10}$ of the fruits are papayas, $\frac{3}{5}$ of the remainder are durians and the rest are mangoes. There are 105 more durians than mangoes.

After selling $\frac{2}{5}$ of the papayas, how many fruits are left?

Ans: _____ [5]

18. Betty had 3440 red, yellow and blue beads. The number of red and yellow beads that Betty had was equal.

After using only some yellow and blue beads to make a necklace, she had $\frac{5}{7}$ of yellow beads and $\frac{3}{5}$ of blue beads left.

Given that the number of beads left was 2820, how many blue beads did she have at first?

Ans: _____ [5]

-End of Paper-

Please check your work carefully ☺

Setters: Mrs. Jacqueline Seto
Mr. Ho Kai Huat
Mr. Ronald Lee

Exam Paper 2013 Answer Sheet

School: RAFFLES GIRLS' PRIMARY SCHOOL
Subject: PRIMARY 6 MATHEMATICS
Term: SA1

Paper 1

1)	4	6)	4	11)	1
2)	4	7)	1	12)	1
3)	2	8)	4	13)	2
4)	4	9)	2	14)	3
5)	3	10)	2	15)	3

16. 8082

17. 60

18. 30

19. $1\frac{7}{12}$

20. 3.025

21. 4.004

22. 25.12

23. $\frac{1}{6}$

24. 53

25. 7.45 p.m.

26. 12 cm ÷ 2 = 6 cm
    15 cm – 6 cm = 9 cm
    ½ x 9 cm x 12 cm = **54 cm^2**

27. 120 + 1 = 121
    121 x 60 = **7260**

28. B → 5y + 1
    A → 5y + 1 + 4 = 5y + 5
    B + A → 5y + 1 + 5y + 5 = 10y + 6
    10y + 6 + 6 + 6 = **(10y + 18) years old**

29. 35 ÷ 4 = 8R3
    8 x $2 = $16
    3 x 55¢ = $1.65

$1.65 + $16 = **$17.65**

30. 180° - 40° - 40° - 38° = **62°**

Paper 2

1. R : B : G
   3 : 1
   6 : 2 : 1
   Answer: **6: 1**

2. ½ x p x 8 = **4p cm²**

3. 4.5 km/h x ⅓ h = 1.5 km
   4.5 km/h + 1.5 km/h = 6 km/h
   1.5 km ÷ 6 km/h = **¼ h**

4. 6 cakes → 72
   1 cake → 72 ÷ 6 = 12
   180 ÷ 12 = **15**

5. 107% → $1618.91
   1% → $^{\$1618.91}/_{107}$
   100% → $^{\$1618.91}/_{107}$ x 100 = **$1513**

6. (a) 3u → 36
   6u → 36 x 2 = **72**

   (b) 1u → 36 ÷ 3 = 12
   26u → 12 x 26 = **312**

7. $12 ÷ 10¢ = 120
   2u → 120
   1u → 120 ÷ 2 = 60
   n x 60 = **60n**

8. (a) **20**

   (b) **25**

   (c) 95 – 1 = **94**

9. (a) $18 x 2 = **$36**

   (b) $36 + $18 = $54
   $54 x 2 = **$108**

10. ½ x 7 cm x 9 cm = 31.5 cm²
    31.5 cm² - 13.5 cm² = 18 cm²
    18 cm² ÷ 9 cm = **2 cm**

11. 55 x $1.40 = $77
$151.80 - $7 = $74.80
$3.60 - $1.40 = $2.20
$74.80 ÷ $2.20 = **34**

12. 3 x (3u – 12) = 4 x (2u – 4)
9u – 36 = 8u – 16
9u – 8u = 36 – 16
1u = 20
5u = 20 x 5
= **100**

13. $5.35 x 9 = $48.15
$153.15 + $48.15 = $201.30
$3.80 + $5.35 = $9.15
$201.30 ÷ $9.15 = 22
22 – 9 = 13
22 + 13 = **35**

14. (a) M : C
12 : 17 (Speed)
12 : 17 (Distance)
60 km/h x 1½h = **90 km**

(b) 5u → 90 km
1u → 90 km ÷ 5 = 18 km
34u → 18 km x 34 = **612 km**

15. ¼ x π x 10 x 10 = 25π
½ x π x 2.5 x 2.5 = 3.125π
½ x π x 5 x 5 = 12.5π
25π – 3.125π + 12.5π ≈ **107.99 cm^2**

16. F : M
4 : 6
40 : 60
32u : 87u
87u + 32u = 119u
119u – 40u – 60u = 19u
19u → 228
1u → $^{228}/_{19}$
60u – 40u = 20u
20u → $^{228}/_{19}$ x 20 = **240**

17. P : O
3 : 7
15 : 35

D : M
3 : 2

21 : 14
21u – 14u = 7u
7u → 105
50u → $^{105}/_{7}$ x 50 = 750
21u → $^{105}/_{7}$ x 21 = 315 (Durian)
15u → $^{105}/_{7}$ x 15 = 225
⅖ x 225 = 90
750 – 90 = **660**

18. 14u + 5p → 3440
168u + 60p → 3440 x 12 = 41280

12u + 3p → 2820
168u + 42p → 2820 x 14 = 39480

60p – 42p = 41280 – 39480
18p = 1800
1p = 100
5p = 100 x 5
= **500**