



**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 1)  
PRIMARY 5**

Name: \_\_\_\_\_ (      )

Form Class: P5 \_\_\_\_\_

Banded Math Class: P5 \_\_\_\_\_

Date: 8<sup>th</sup> May 2014

Duration: 50 min

<b>Your Paper 1 Score (Out of 40 marks)</b>	
<b>Your Paper 2 Score (Out of 60 marks)</b>	
<b>Your Total Score (Out of 100 marks)</b>	
<b>Parent's Signature</b>	

**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. 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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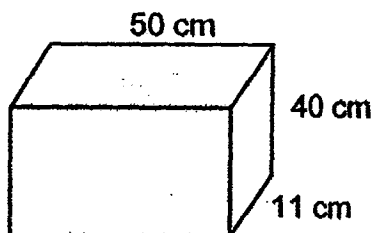
1. In 120.458, which digit is in the hundredths place?

- (1) 1
- (2) 5
- (3) 8
- (4) 4

2. Express 0.55 as a fraction in its simplest form.

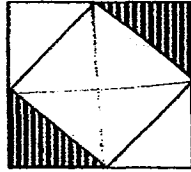
- (1)  $\frac{1}{2}$
- (2)  $\frac{11}{20}$
- (3)  $\frac{11}{200}$
- (4)  $\frac{55}{100}$

3. Find the volume of the cuboid below.



- (1) 2 000 cm<sup>3</sup>
- (2) 2 200 cm<sup>3</sup>
- (3) 20 000 cm<sup>3</sup>
- (4) 22 000 cm<sup>3</sup>

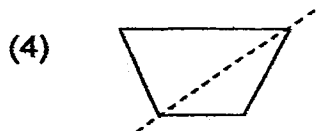
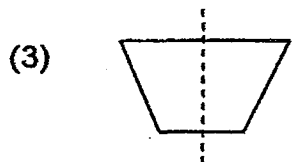
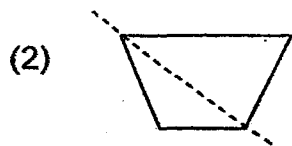
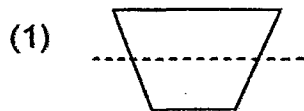
4. The figure below is made up of 2 squares.



What fraction of the figure is shaded?

- (1)  $\frac{2}{3}$
- (2)  $\frac{1}{2}$
- (3)  $\frac{1}{3}$
- (4)  $\frac{1}{4}$

5. Which one of the figures below has a line of symmetry?



6. Which one of the shapes below can be tessellated?

(1)



(2)



(3)



(4)



7. The product of 500 and 800 is \_\_\_\_\_

(1) 4 000

(2) 40 000

(3) 400 000

(4) 4 000 000

8. 10kg of sugar is packed equally into 6 similar packets.  
What is the mass of each packet?

(1)  $1\frac{1}{2}$  kg

(2)  $1\frac{2}{3}$  kg

(3)  $1\frac{3}{4}$  kg

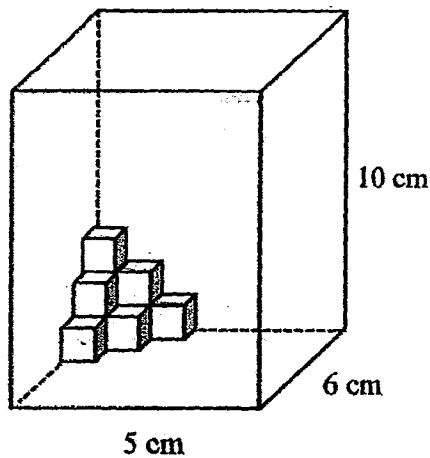
(4)  $1\frac{4}{5}$  kg

9. The ratio of the number of apples to the number of oranges in a basket was 3 : 4. There were 8 more oranges than apples. How many fruits were there in the basket?
- (1) 14
  - (2) 24
  - (3) 32
  - (4) 56
10. Which of the following when rounded off to the nearest thousands does not give 69 000?
- (1) 69 499
  - (2) 68 900
  - (3) 68 500
  - (4) 68 499
11. There were 18 red marbles and 14 blue marbles in a box.  $\frac{3}{4}$  of the marbles were sold. How many marbles were left?
- (1) 8
  - (2) 24
  - (3) 32
  - (4) 4
12. 600 thousands + 70 hundreds + 50 tens + 3 ones is the same as \_\_\_\_\_.
- (1) 600 753
  - (2) 607 503
  - (3) 670 053
  - (4) 675 003

13. Rayhana bought some beads. At first she packed them into bags of 6 and there were 3 beads left over. She then packed them into bags of 8 and there were also 3 beads left over. What was the smallest number of beads that she could have bought?

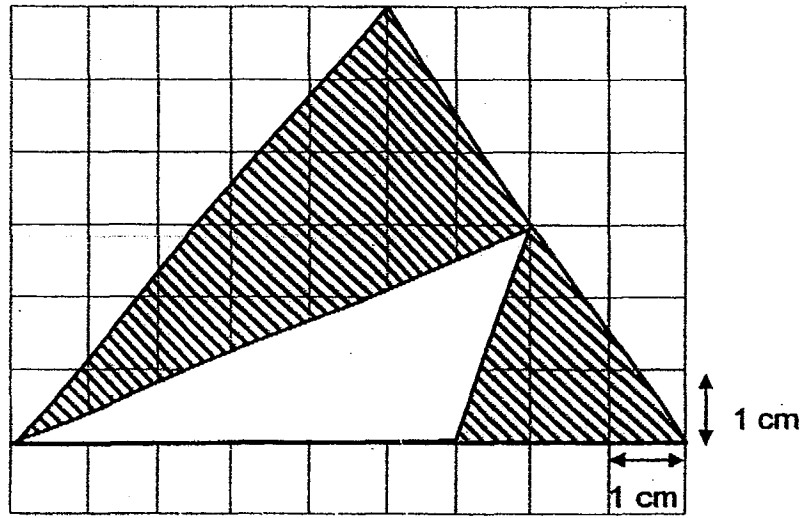
- (1) 21
- (2) 24
- (3) 27
- (4) 30

14. The glass tank below contains some 1-cm cubes. What is the maximum number of cubes that can still be added into the tank?



- (1) 290
- (2) 291
- (3) 294
- (4) 300

15. Calculate the total shaded area in the figure below.



- (1)  $10.5 \text{ cm}^2$
- (2)  $13.5 \text{ cm}^2$
- (3)  $16.5 \text{ cm}^2$
- (4)  $18.0 \text{ cm}^2$

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.

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16. Arrange the following numbers in descending order.

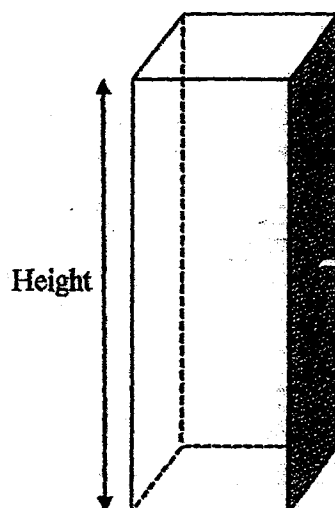
7 894 600 , 7 896 400 , 798 640 , 7 984 600

Ans: \_\_\_\_\_

17.  $0.452 =$  \_\_\_\_\_ thousandths.

Ans: \_\_\_\_\_

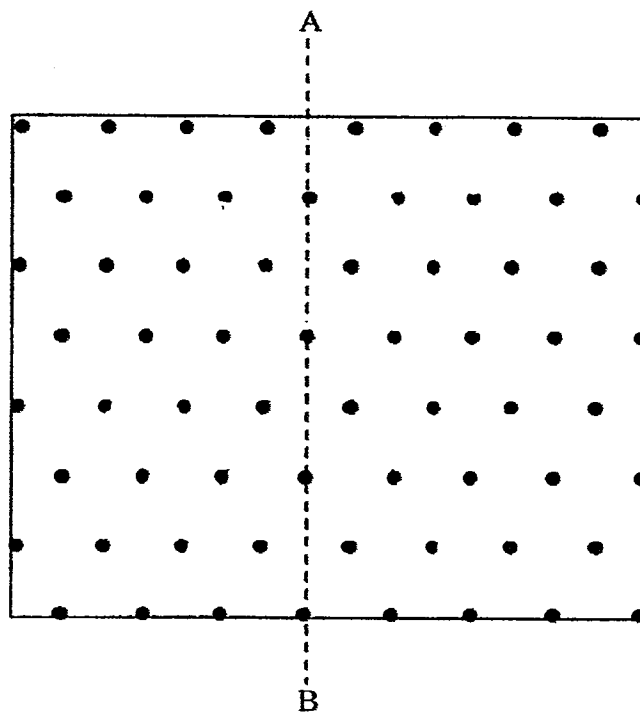
18. The cuboid below has a square base area of  $16 \text{ m}^2$ .  
The area of the shaded face is  $48 \text{ m}^2$ .  
Find the height of the cuboid.



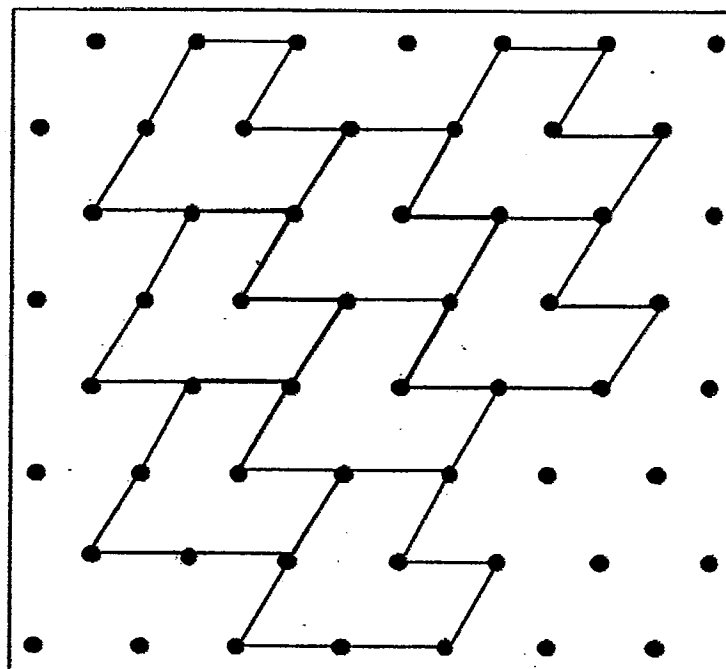
Ans: \_\_\_\_\_ m



19. Use a ruler to complete the figure below so that the dotted line AB is the line of symmetry.



20. The pattern in the box below shows a part of a tessellation. Extend the tessellation by drawing 1 more unit shape within the box.



21. Find the value of  $1\frac{2}{3} - \frac{5}{6}$

Ans: \_\_\_\_\_

22. Express  $6\frac{7}{20}$  as a decimal.

Ans: \_\_\_\_\_

23. What is the value of  $1.125 \times 3$ ?

Ans: \_\_\_\_\_

24. Calculate  $32 \div 100 - 0.01$   
Round off your answer to 1 decimal place.

Ans: \_\_\_\_\_

25. Sherry has \$1 in 20-cent coins and \$5 in 50-cent coins.  
Find the ratio of the number of 20-cent coins to the number of 50-cent coins.

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. Miss Luo wanted to place 48 potted plants around a square garden.  
After putting 1 potted plant in each corner, she placed the rest of the potted plants equally along the 4 sides.  
Find the number of potted plants on each side.

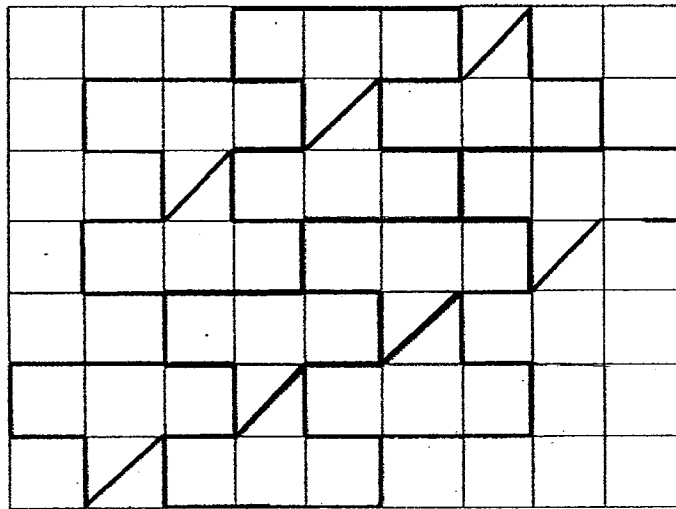
Ans: \_\_\_\_\_

27.  $(150 + 50) - 40 + 60 \div 2 \times 5 =$  \_\_\_\_\_

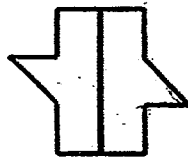
Ans: \_\_\_\_\_

28. The shape  can be tessellated.

- (a) The pattern in the box below shows part of a tessellation.  
Extend the tessellation by drawing one more unit shape in the space provided within the box. [1]



- (b) 2 such shapes are joined to form a new shape shown below.



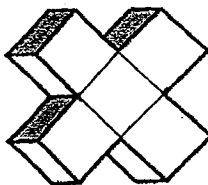
Can this new shape tessellate? Yes or No?

Ans : \_\_\_\_\_ [1]

29. Jane wanted to fill an empty water tank measuring 70 cm long, 30 cm wide and 20 cm high with water using a bucket. Given that the capacity of the bucket was 7 litres, how many buckets of water were needed to fill the tank completely?

Ans: \_\_\_\_\_

30. The solid below is made up of identical cubes. The total surface area of the solid is  $2200 \text{ cm}^2$ . Find the volume of the solid.



Ans: \_\_\_\_\_  $\text{cm}^3$

**End of Paper**

**☺ Please check your work carefully ☺**

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



**RAFFLES GIRLS' PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 1  
MATHEMATICS (PAPER 2)  
PRIMARY 5**

Name: \_\_\_\_\_ (   )

Form class: P5 \_\_\_\_\_ Banded Math Class: P5 \_\_\_\_\_

Date: 8<sup>th</sup> May 2014

Duration: 1 h 40 min

<b>Your Paper 2 Score (Out of 60 marks)</b>	
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**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. 45 pupils took part in a quiz.  $\frac{1}{3}$  of the pupils were boys.

How many girls took part in the quiz?

Ans: \_\_\_\_\_ [2]

2. Write down all the common factors of 16 and 24.

Ans: \_\_\_\_\_ [2]



3. Arrange the ~~fractions~~ <sup>numbers</sup> below in ascending order.

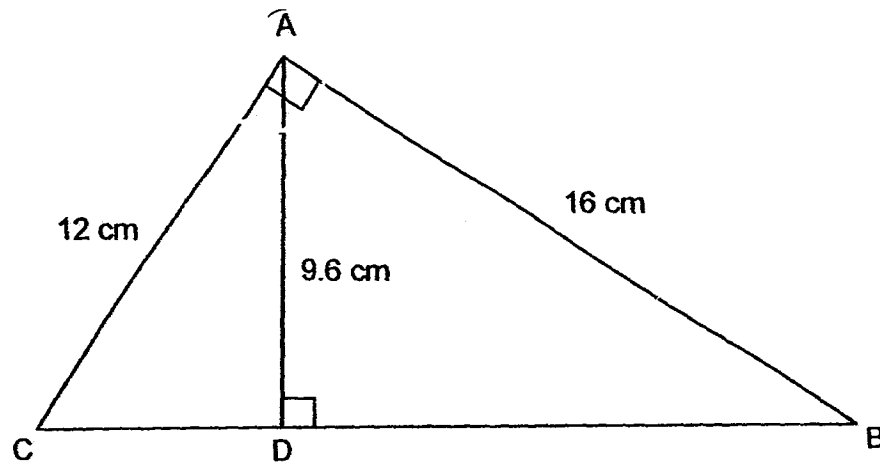
$$3\frac{3}{4}, 3\frac{7}{11}, 3.157$$

Ans: \_\_\_\_\_ [2]

4. The ratio of Andy's age to his father's age is 2 : 5.  
Their total age now is 84 years old. How old will Andy be in 10 years' time?

Ans: \_\_\_\_\_ years old [2]

5. Calculate the area of the triangle ABC.



Ans: \_\_\_\_\_ cm<sup>2</sup> [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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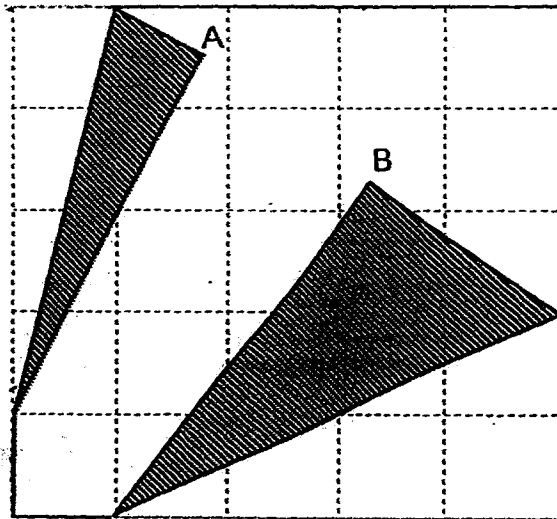
6. Kimberly planned to finish reading a book in 16 days by reading 35 pages a day. In the end, she took 4 days longer to finish reading the book. How many pages did she read per day?

Ans : \_\_\_\_\_ [3]

7. A box contained some blue and red marbles in the ratio 3 : 8. When 144 blue marbles were added in, the ratio became 3 : 4. Find the number of marbles in the box at first.

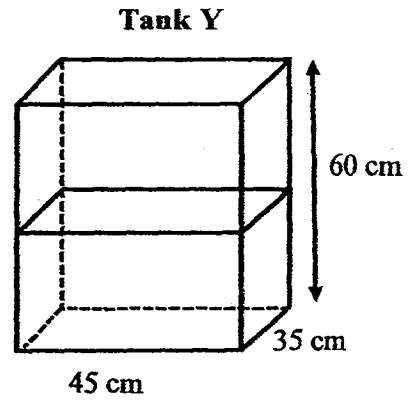
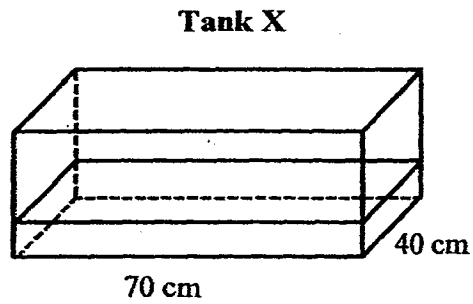
Ans: \_\_\_\_\_ [3]

8. The figure below shows a square piece of paper of length 15 cm, folded at opposite corners A and B. What is the total area of the shaded parts of the figure?



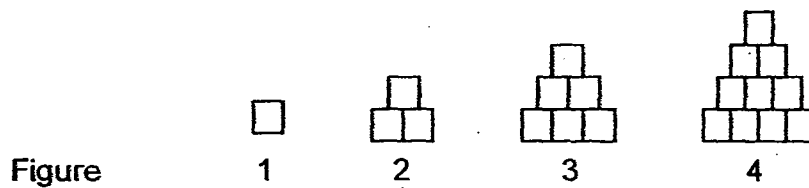
Ans: \_\_\_\_\_ [3]

9. At first, Tank X was  $\frac{1}{4}$  filled with water while Tank Y was  $\frac{1}{2}$  filled with water. Then all the water from Tank X was poured into Tank Y and Tank Y became  $\frac{5}{6}$  full. What was the height of Tank X?



Ans: \_\_\_\_\_ [4]

10. Chloe used unit square of side 4cm to build some figures.  
The first four figures are shown below.



The table below shows the number of squares used for each figure and the height of each figure.

Figure	Number of squares used	Perimeter of the figure ( cm )
1	1	4
2	3	8
3	6	12
4	10	16
5	[1]	[1]

(a) Complete the table for Figure 5.

(b) How many squares are needed to build Figure 90?

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Ans : (b) \_\_\_\_\_ [2]

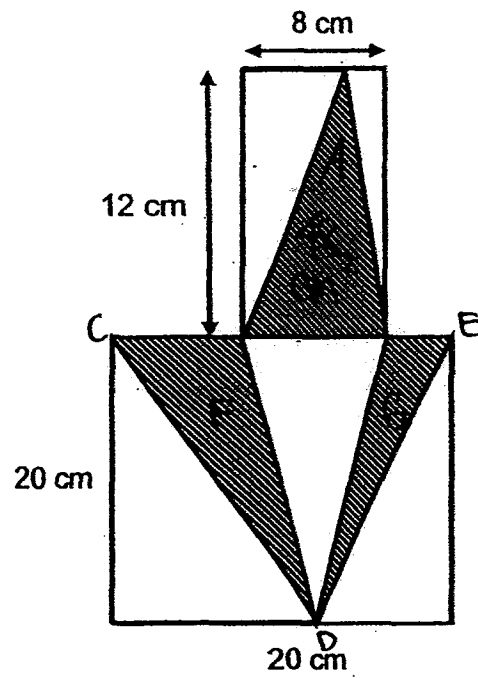
11. A tank with a square base of side 35 cm contained 12.6 litres of water at first. After another 7 litres of water was added, the tank was  $\frac{2}{3}$  filled. Find the height of the tank.

Ans: \_\_\_\_\_ [3]

12. Andy had 650 stickers. Bernice had  $\frac{3}{5}$  as many stickers as Andy. Cindy had 150 more stickers than Bernice. How many stickers did they have altogether?

Ans: \_\_\_\_\_ [3]

13. The figure below is made up of a rectangle and a square. Find the area of the shaded parts.



Ans: \_\_\_\_\_ [4]



14. Mrs Chan went shopping with some money.

In shop A, she spent half of her money plus \$1 on clothing.

In shop B, she spent half of the remaining money plus \$2 on a pair of shoes.

In shop C, she spent  $\frac{1}{3}$  of the remaining plus \$3 on a bag and had \$49 left

How much money had Mrs Chan at first?

Ans: \_\_\_\_\_ [5]

15. In a factory, Machine A produced a box every 3 minutes and Machine B produced a box every 4 minutes.
- (a) If both machines started at the same time, how long did it take Machine A to produce 20 more boxes than Machine B?
- (b) How many boxes were produced by both machines altogether in that time?

Ans: (a) \_\_\_\_\_ [2]

(b) \_\_\_\_\_ [2]

16. Alan, Ben and Carl each had some marbles. Ben had 1168 fewer marbles than Alan. After Alan and Ben each gave 355 marbles to Carl, Alan had 5 times as many marbles as Ben.

- (a) How many marbles did Alan have at first?
- (b) If Carl had 500 more marbles than Ben in the end, how many marbles did Carl have at first?

Ans : (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

17. Joyce had some apples. She used  $\frac{1}{5}$  of the apples to make apple pie and  $\frac{1}{3}$  of the remaining apples for apple juice. She then bought another 242 apples and found that she had twice as many apples as she had at first. How many apples did she have at first?

Ans: \_\_\_\_\_ [4]

18. Lily had  $\frac{2}{3}$  as much money as Andrew. After each of them spent \$250, the amount of money Lily had left became  $\frac{3}{10}$  of the total amount of money both of them had left.
- (a) How much did Andrew have at first?
- (b) How much money must Andrew give to Lily so that they have the same amount of money in the end?

Ans: (a) \_\_\_\_\_ [3]

(b) \_\_\_\_\_ [2]

**End of Paper**  
**Please check your work carefully ☺**

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

**EXAM PAPER 2014****LEVEL : PRIMARY 5****SCHOOL : RAFFLES****SUBJECT : MATHS****TERM : SA1**

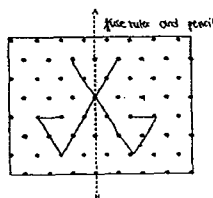
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	2	4	4	3	1	3	2	4	4	1	2	3	1	4

Q16 7984 600, 7896 400, 7894 600, 798 640

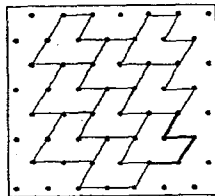
Q17 452

Q18 12m

Q19



Q20

Q21  $\frac{5}{6}$ 

Q22 6.35

Q23 3.375

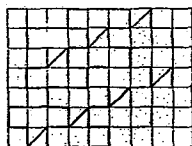
Q24 0.3

Q25 1:2

Q26 13

Q27 310

Q28(a)



(b) No

Q29 6

Q30  $5000 \text{ cm}^3$

## Paper 2

Q1  $\frac{2}{3} \times 45 = 30$

**30 girls took part in the quiz.**

Q2 Factors of 16: 1, 2, 4, 8, 16  
Factors of 24: 1, 2, 3, 4, 6, 8, 12, 24

**The common factors are 1, 2, 4, 8**

Q3 **3.157,  $3\frac{7}{11}$ ,  $3\frac{3}{4}$**

Q4            A : F  
              2 : 5  
2 units + 5 units = 7 units  
7 units  $\rightarrow$  84  
2 units  $\rightarrow$  24  
24 + 10 = 34

**Andy will be 34 years old.**

Q5  $\frac{1}{2} \times 12 \times 16 = 96$

**The area is 96 cm<sup>2</sup>.**

Q6  $16 \times 350 = 560$  (total pages)  
 $16 \div 4 = 20$   
 $560 \div 20 = 28$

**She read 28 pages per day.**

Q7 6 units – 3 units = 3 units  
3 units  $\rightarrow$  144  
1 unit  $\rightarrow$  48  
 $48 \times 3 + 48 \times 5 = 528$

**There are 528 marbles.**

Q8  $15 \div 5 = 3$   
 $3 \times 4 = 12$   
 $\frac{1}{2} \times 3 \times 12 = 18$   
 $3 \times 2 = 6$   
 $\frac{1}{2} \times 6 \times 12 = 36$   
 $18 + 36 = 54$

**The total area is 54cm<sup>2</sup>.**

- Q9 New height of water in tank Y  $\rightarrow \frac{5}{6} \times 60 = 50$   
 Old height of water in tank Y  $\rightarrow \frac{1}{2} \times 60 = 30$

Difference in height due to water from X  $\rightarrow 50 - 30 = 20$   
 Volume of water in X  $\rightarrow 45 \times 35 \times 20 = 31500$   
 Height of water in tank X  $\rightarrow 31500 \div (70 \times 40) = 11.25$   
 Height of tank X  $\rightarrow 11.25 \times 4 = 45$

The height is 45cm.

- Q10 (a)

No of squares	Fig 1	2	3	4	5	6	7	8
	1	1+2	1+2+3	1+2+3+4	1+2+3+4+5	1+2+3+4+5+6	1+2+3+4+5+6+7	1+2+3+4+5+6+7+8
Peri $\Rightarrow$	$\frac{1}{4}$	$\frac{2}{4 \times 2}$	$\frac{3}{4 \times 3}$	$\frac{4}{4 \times 4}$	$\frac{5}{4 \times 5}$			
				$4 \times 5 = 20$				

- (b)  $1+2+3+4+5+6+\dots+90$   
 $(90 \div 2) \times 91 = 4095$

4095 squares are needed to build Figure 90.

- Q11  $12.6 + 7 = 19.6$   
 $19.6L = 19600cm^3$   
 Base area =  $35 \times 35$   
 Height of water  $\rightarrow 19600 \div 35 \div 35 = 16$   
 Height of Tank  $\rightarrow 16 \div 2 \times 3 = 24$

The height of tank is 24cm.

- Q12 Bernice  $\rightarrow \frac{3}{5} \times 650 = 390$   
 Cindy  $\rightarrow 390 + 150 = 540$   
 $390 + 540 + 650 = 1580$   
 5 units  $\rightarrow 650$   
 1 unit  $\rightarrow 130$   
 $130 \times 11 = 1430$   
 $1430 + 150 = 1580$

They had 1580 stickers altogether.

- Q13  $\frac{1}{2} \times 8 \times 12 = 48$   
 $20 - 8 = 12$   
 $\frac{1}{2} \times 12 \times 20 = 120$   
 $120 + 48 = 168$

The area of shaded parts is  $168cm^2$ .



Q14 2 units  $\rightarrow 49 + 3 = 52$   
 1 unit  $\rightarrow 26$   
 3 units  $\rightarrow 78$   
 $78 + 2 = 80$   
 $80 \times 2 = 160$   
 $160 + 1 = 161$   
 $161 \times 2 = 322$

**Mrs Chan had \$322 at first.**

Q15(a) 1 group of 12 min  
 A  $\rightarrow 12 \div 3 = 4$   
 B  $\rightarrow 12 \div 4 = 3$   
 Difference  $\rightarrow 4 - 3 = 1$  (every 12 min Machine A will produce 1 box more than B)  
 $12 \times 20 = 240$   
 240 min = 4 hours

**Machines A needs 4 hours.**

(b) In 12 min, A + B  $\rightarrow 3 + 4 = 7$   
 In 240 min, A  $\rightarrow 240 \div 3 = 80$   
 B  $\rightarrow 240 \div 4 = 60$   
 $80 + 60 = 140$

**Both machines will produce 140 boxes.**

Q16(a) 4 units  $\rightarrow 1168$   
 1 unit  $\rightarrow 292$   
 5 units  $\rightarrow 1460$   
 $1460 + 355 = 1815$

**Alan had 1815 marbles at first.**

(b) Ben (at the end)  $\rightarrow 292$   
 Carl (at the end)  $\rightarrow 292 + 500 = 792$   
 $355 \times 2 = 710$   
 $792 - 710 = 82$

**Carl had 82 marbles at first.**

Q17

$\left(\frac{15}{15}\right) \mid \begin{array}{l} \nearrow \frac{1}{5} \text{ (used)} \\ \left(\frac{2}{15}\right) \\ \searrow \frac{4}{5} \text{ (remaining)} \\ \left(\frac{12}{15}\right) \end{array} \begin{array}{l} \nearrow \frac{1}{3} \text{ (used)} \\ \left(\frac{4}{15}\right) \\ \searrow \frac{2}{3} \text{ (left)} \\ \left(\frac{8}{15}\right) \end{array}$   
 $\frac{1}{3} \times \frac{4}{5} = \frac{4}{15}$   
 $8 \text{ units} + 242 \rightarrow 30 \text{ units (twice as many)}$   
 $22 \text{ units} \rightarrow 242$   
 $1 \text{ unit} \rightarrow 11$   
 $15 \text{ units} \rightarrow 165$

Q18(a)                      L : A : Diff  
                                     (Before)    2 : 3 : 1  
                                     (spent)    \$250 \$250  
                                     (after)     3 : 7 : 4  
    8 : 12 : 4

8 units – 3 units → 5 units

5 units → 250

1 unit → 50

12 units → 600

**Andrew had \$600 at first.**

(b) 10 units ÷ 2 = 5 units

5 units – 3 units → 2 units

2 units → 50 × 2 = 100

**Andrew must give \$100 to Liliy.**