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

Name: _____ ( )

Form Class: P5 _____ Banded Math Class: P5 ___ ___

Date: 8 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. Which one of the following has the digit 1 in the millions place?

   (1) 10 000

   (2) 100 000

   (3) 1 000 000

   (4) 10 000 000 ( )

2. $1978 \times 75 = 1978 \times 26 + \underline{\quad\quad} \times 1978$

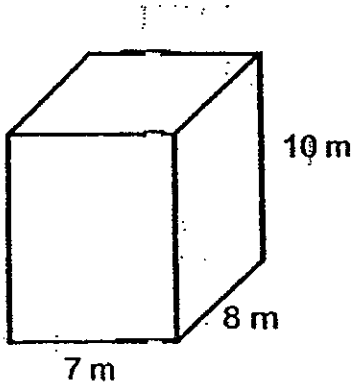
   (1) 49

   (2) 51

   (3) 75

   (4) 101 ( )

3. Find the volume of the cuboid shown below.



(1) $56\ m^3$

(2) $112\ m^3$

(3) $420\ m^3$

(4) $560\ m^3$ ( )

4. $\frac{3}{4}$ has the same value as _____.

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

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

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

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

5. Express $\frac{33}{9}$ as a mixed number. The answer is _____.

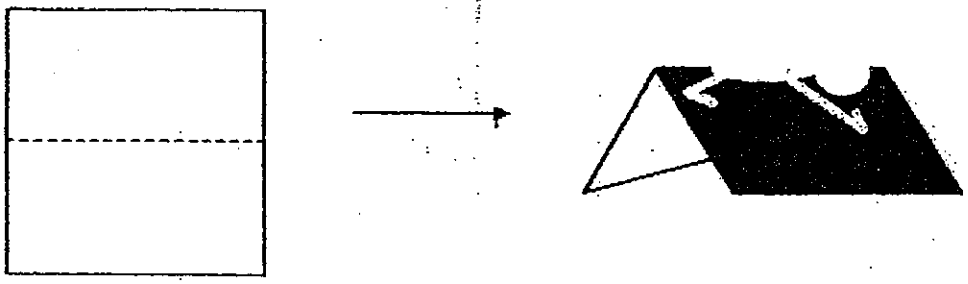
(1) $3\frac{1}{6}$

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

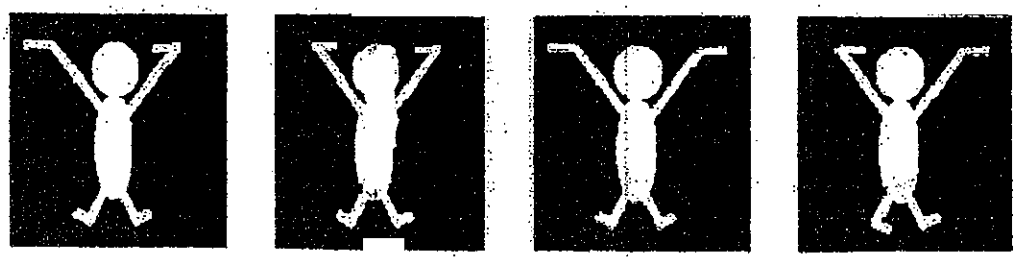
(3) $3\frac{1}{3}$

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

6. Ali folded a piece of paper in half along the dotted line and cut the shape as shown below.



When Ali unfolded the paper, which one of the following shows the correct shape of the cut out?



(1) (2) (3) (4)

( )

7. Find the product of 1.28 x 7. Which digit is in the hundredths place?

(1) 6

(2) 2

(3) 8

(4) 9

( )

8. Express 0.125 as a fraction in its lowest term.

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

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

(3) $\frac{1}{40}$

(4) $\frac{1}{125}$ ( )

9. 6 : 15 = 14 : ☐

What is the missing number

(1) 7

(2) 17

(3) 23

(4) 35 ( )

10. The number of people at a stadium when rounded off to the nearest thousand was 64 000 people
what was the largest possible number of people in the stadium?

(1) 63 499

(2) 63 999

(3) 64 499

(4) 64 500 ( )

11. $\frac{3}{5}$ of a ☼ is 225.

What is the value of ☼ ?

(1) 45

(2) 75

(3) 150

(4) 375 ( )

12. Which one of the following letters does not have any line of symmetry ?

A H S V

(1) A

(2) H

(3) S

(4) V ( )

13. What is the sum of the common factors of 12 and 48 ?

(1) 27

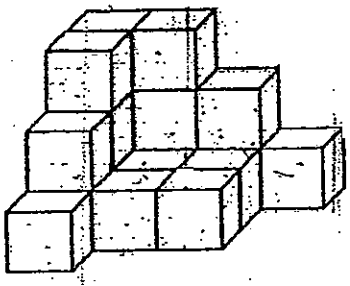
(2) 28

(3) 36

(4) 60 ( )

14. The solid below is made up of some identical 2-cm cubes.

What is the volume of the solid?



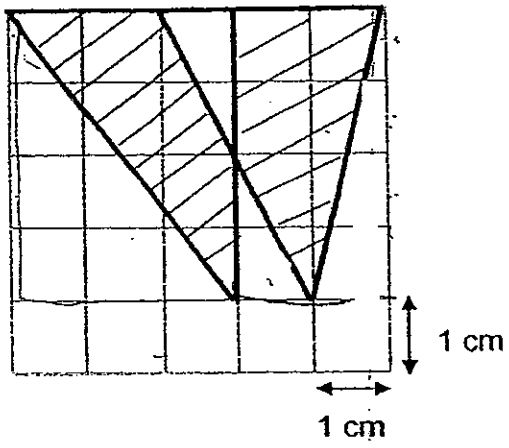
(1) 19 cm^3

(2) 38 cm^3

(3) 136 cm^3

(4) 152 cm^3 ( )

15. What is the total shaded area in the figure below?



(1) 10 cm^2

(2) 11 cm^2

(3) 12 cm^2

(4) 13 cm^2 ( )

SECTION A (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.

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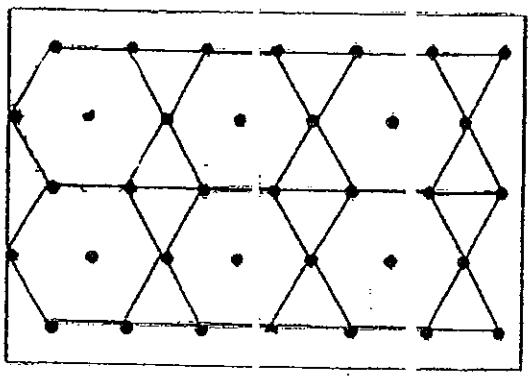
16. Form the biggest possible odd number with the following digits.

    0, 2, 3, 4, 5, 6

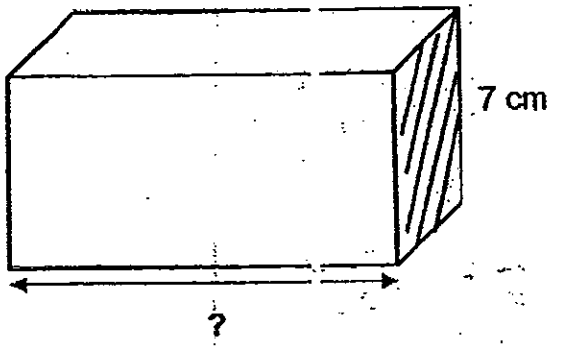
Ans: _____

17. From the tessellation provided below. Shade one unit shape of the tessellation.



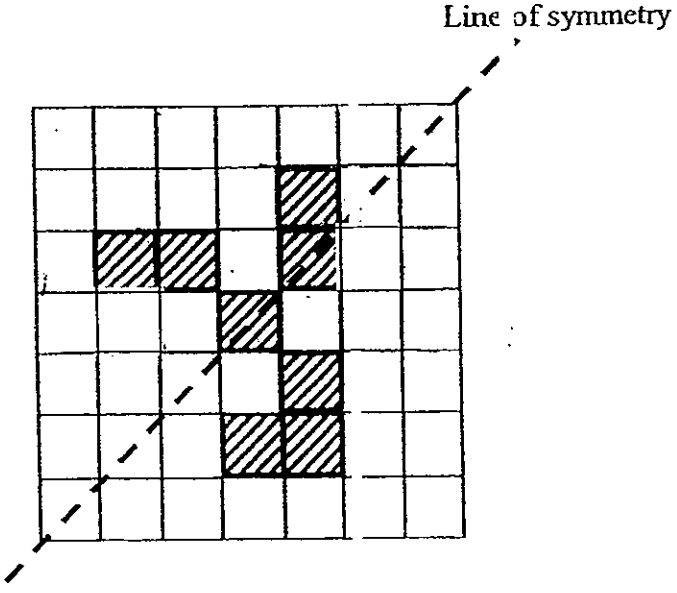
18. The volume of the box shown below is 441 cm^3.

if the shape of shaded area square, find length of its base.



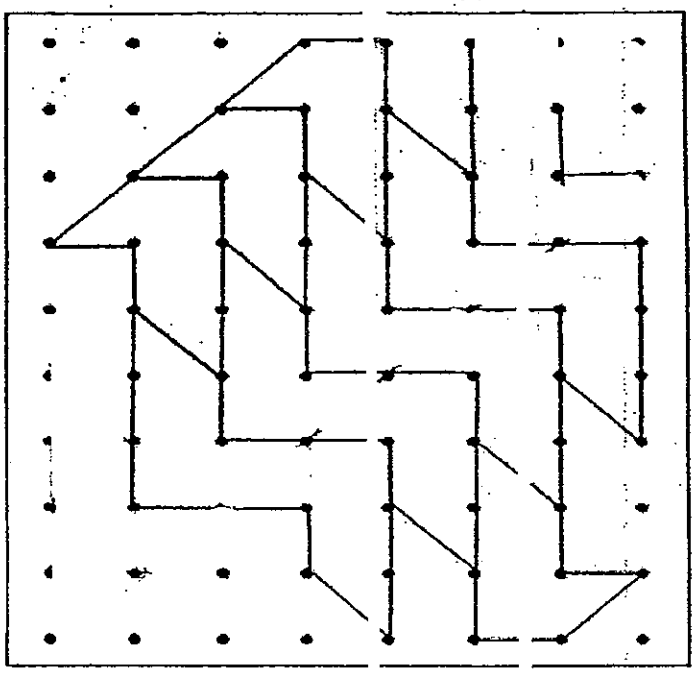
Ans: _____ cm

19. Shade 2 squares to make the figure below symmetrical.



20. The pattern in the box below shows a part of a tessellation.

Extend the tessellation by drawing 2 more unit shapes within the box.



21. Sally had $8\frac{1}{5}$ kg of flour. She used $3\frac{1}{4}$ kg of the flour to make a cake.

How much flour had she left ?

Ans: _____ kg

22. Express $2\frac{6}{7}$ as a decimal, correct to 2 decimal places.

Ans: _____

23. Sharon bought 8 erasers at $1.35 each. She gave the cashier $50. How much change did she receive?

Ans: $_____

24. Mutiara changed $100 into 20-cent coins only. How many 20-cent coins did she receive?

Ans: _____

25. Arrange the fractions below in ascending order.

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

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. Fill in the blanks with the correct symbols, $+, -, \times, \div$ such that the number sentence is correct.

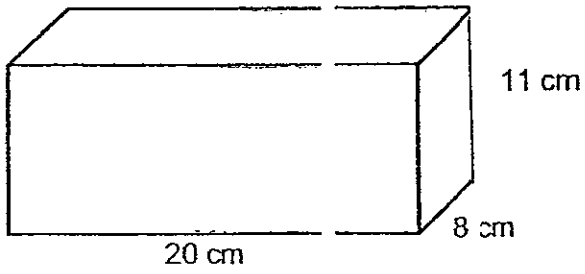
$$10 + (10 \_\_\_\_\_ 10) \_\_\_\_\_ 10 = 100$$

27. Find the missing number in the blank

$$57.81 = 57 + \_\_?\_\_ \div 10) + 0.01$$

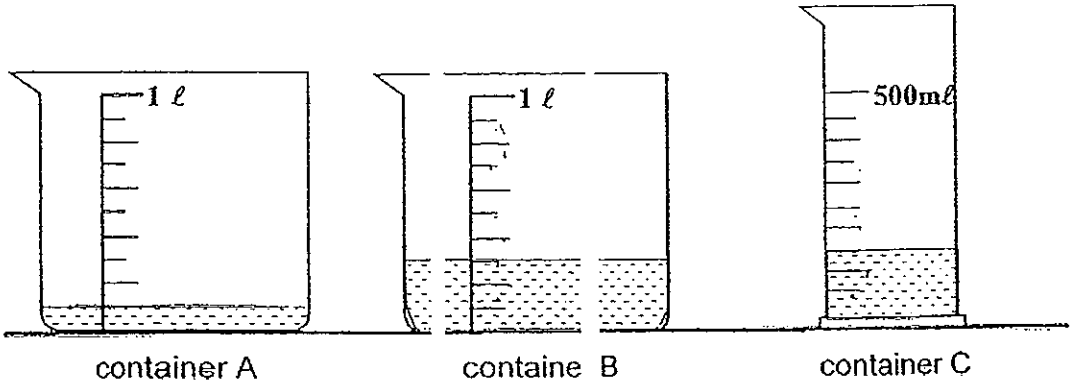
Answer : _____

28. What is the maximum number of 2 -cm cubes that can be put inside the rectangular tank measuring 20 cm by 8 cm b 11 cm?



Ans: _____

29. There are 3 containers filled with ome wate as shown below.



All the water in containers B and C is poured into container A without any water spilling over. What is the amount of the water in container A now? Express your answer in litres.

Ans: _____ ℓ

30. A set of Christmas tree lighting has 3 different types of colour bulbs. All the red bulbs flash at 2 minutes interval. All the green bulbs flash at 4 minutes interval and all the yellow bulbs flash at 5 minutes interval.

All colour bulbs flash together when the lighting is first switched on. How many **more** times will all the three colour bulbs flash together if it is turned on for $1\frac{1}{2}$ hour?

Ans : _____

End of Paper

☺ Please check your work carefully ☺

Setters: Mr. Ho Kai Huat
Mr. Tan Siew Whatt
Mr. Darren Lau

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

Name: _____ ( )

Form class: P5 _____ Banded Math Class: P5 _____

Date: 8 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.
2. Follow all instructions carefully.
3. Answer **ALL** questions and show all working clearly.
4. The use of calculator is allowed for this paper.

15

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. There were 108 girls and 115 boys participating in VoiceBox audition.
$\frac{1}{4}$ of the girls and $\frac{1}{5}$ of the boys made it to the final round.
What fraction of the children made it to the final round?

Ans:_____[2]

2. A robot is able to saw a metal pole into 4 pieces in 12 minutes.
How long will it take to saw an identical metal pole into 12 pieces?

Ans_____min [2]

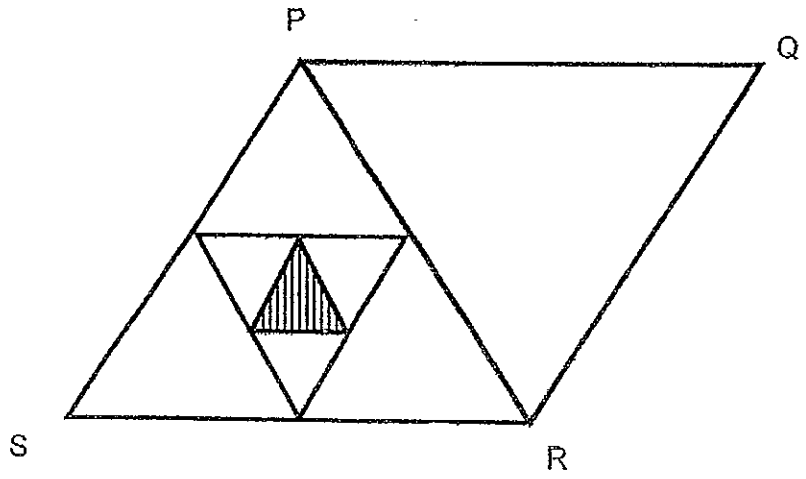
3. There were 520 children taking part in a kid's race. 240 of them were girls.
What was the ratio of the number of girls to the number of boys?

Ans:_____ [2]

4. $\frac{2}{5}$ of Andy's cookies is equal to $\frac{3}{4}$ of Ben's cookies. What is the ratio of the number of Andy's cookies to the number of Ben's cookies ?

Ans: _____ [2]

5. The figure below is made up of equilateral triangles.
If the area of the shaded triangle is 24 cm^2, what is the area of the figure PQRS?



Ans: _____ cm^2 [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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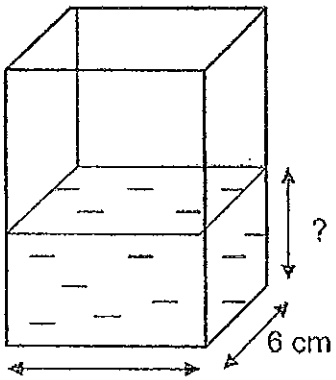
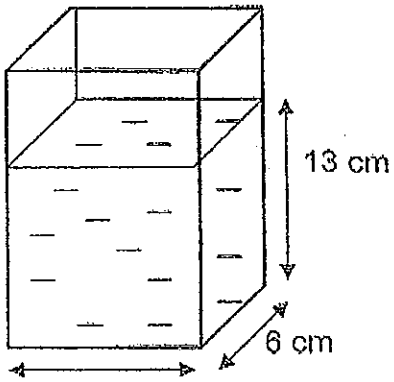
6. There was some water in the tank as shown in the diagram below. When 288 cm^3 of water was poured into the tank, the height of the water level increased to 13 cm. What was the height of the water in the tank at first?

Before



After

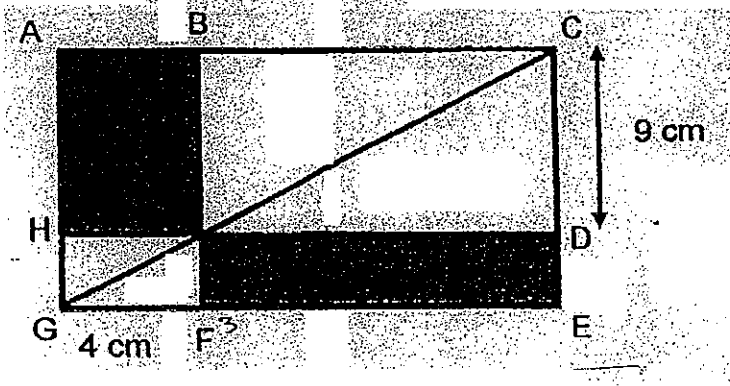


Ans: _____ [3]

7. Mrs Lau had mangoes and peaches in the ratio of 5:3 After selling 96 mangoes the ratio of the number of mangoes to the number of peaches became 3:5. Find the number of mangoes. Mrs Lau had at first.

Ans: _____ [3]

8. In the rectangle ACEG shown below, The area of triangle GOF is $\frac{1}{9}$ of the area Of triangle COD



(a) Find length OD if the area of triangle GOF is 6 cm^2.

(b) Find the total area of the shaded parts

Ans: (a)_____[2]

(b)_____[2]

9. Mrs Lim is thrice as old as her daughter now. Given that she is 24 years older than her daughter. How many years ago was Mrs Lim four times as old as her daughter?

Ans: _____[3]

21

10. The 16 boxes below are filled with numbers starting from 1 to 16. Each number can only appear once.

4	A	14	5
6	13	12	D
9	2	B	16
C	8	1	10

4 + A + 14 + 5 = ☺

14 + 12 + B + 1 = ☺

10 + 1 + 8 + C = ☺

5 + D +16 +10 = ☺

(a) Find the value of C + D

(b) Find the value of ☺

Ans : (a) _____ [2]

(b) _____ [1]

11. Rebecca and Stephanie spent $800 altogether during a trip.

$\frac{1}{3}$ of Rebecca's spending was $45 more than $\frac{1}{4}$ of Stephanie's spending.

How much money did Stephanie spend during the trip?

Ans: _____ [4]

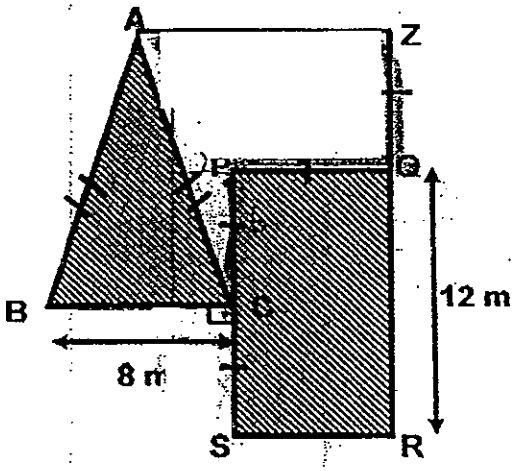
23

12. There were 20 more pears than plums at a fruit stall. After $\frac{1}{5}$ of the pears and $\frac{3}{10}$ of the plums were sold, there were 46 pears and plums left.

How many plums were left over?

Ans: _____ [3]

13. The figure below is made up an isosceles triangle ABC, rectangle AQRS unshaded part AZQOC. Area of triangle ABC is $\frac{1}{3}$ of the area of rectangle PQRS.



(a) Find the area of triangle ABC.

(b) Find the area of the unshaded part in the figure.

Ans: (a)_____[1]

(b)_____[3]

25

14. The head of a toy crocodile is 20 cm long its tail is as long as head plus half of the length of its body. The body is as long as the head and tail together. what is the length of the toy crocodile?

Ans : _____ [4]

15. Bala had a box with 4 files. The box and 4 files weighed 11.16 kg.
Then, he added 2 more files and 5 books into the box.
The mass of the box with all the files and books became 20.29 kg.
if the mass of a file is 3 times the mass of a book.

(a) Find the mass of the box.

(b) Bala could only lift a maximum mass of 15 kg.
What was the least number of file(s) that he could remove from the box so that he was able to lift the box?

Ans: (a) _____ [3]

(b) _____ [2]

16. Four sisters, Alice, Betty, Charmaine and Dolly had a total of 260 sweets at first. Mother gave Alice 20 more sweets; Betty ate 10 sweets; Charmaine bought some sweets and her share doubled; and Dolly gave half of her sweets away. As a result, they had the same number of sweets left.
How many more sweets did Dolly have than Charmaine at first?

Ans: _____ [4]

17. During a fund raising project, class 5A raised $\frac{2}{3}$ as much money as the total amount raised by classes 5B and 5C. Class 5B raised $\frac{1}{5}$ as much money as the total amount raised by class 5A and 5C.

(a) What fraction of the funds was raised by class 5A?

(b) Class 5B raised $104 less than class 5C. How much money did class 5C raise?

Ans: (a) _____ [2]

(b) _____ [3]

29

18. **The ratio of the number of girls to the number of boys taking part in a swimming** assessment was 6:5 The assassment showe d that the ratio of the number of girls' swimmers to the number of girls' non-swimmers wae 5:2 The ratio of the number of boys' swimmers to the number of boys' non-swimmers was 3:2

(a) what fraction of the children were non-swimmers?

(b) if there were 30 more boys' non-swimmers than girls'non-swimmers how many swimmers were there altogether.

Ans: (a) _____ [2]

(c) _____ [3]

-End of Paper-
Please check your work carefully ☺

Setters: Mr. Ho Kai Huat
Mr. Tan Siew Whatt
Mr. Darren Lau

RGPS Maths SA 1 2012

Answer Sheet

Mathematics 2012

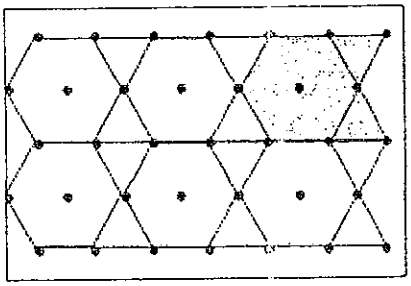
Section A

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

Section B

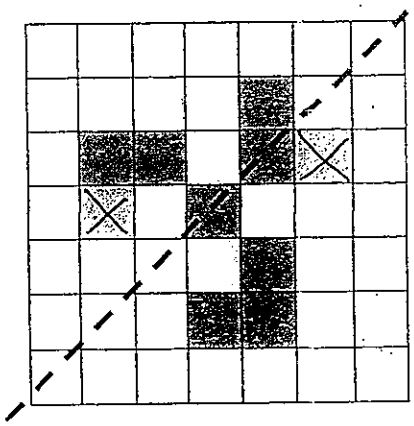
16) 654 203	21) $4\frac{19}{20}$ kg
17) Refer to answer below	22) 2.86
18) 9 cm	23) $39.20
19) Refer to answer below	24) 500
20) Refer to answer below	25) $\frac{4}{7}$, $\frac{4}{5}$, $\frac{7}{5}$, $\frac{7}{4}$

17)

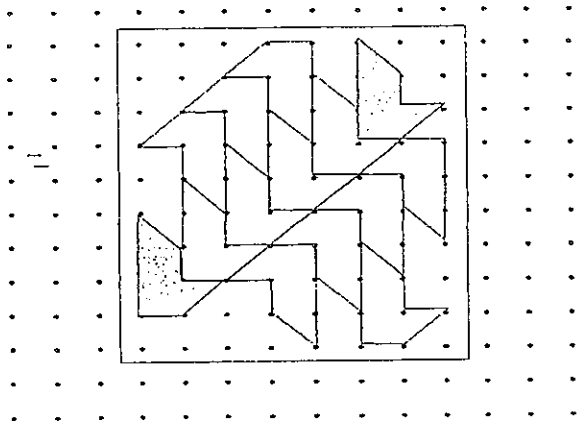


Line of symmetry

19)



20)



Section B

26) $10 + (10 \times 10) \div 10 = 100$

27) 80

28) $20 \div 2 = 10$
$8 \div 2 = 4$
$11 \div 2 \approx 5$
$10 \times 4 \times 5 = 200$

29) $100 + 300 + 150 = 550$
$550ml = 0.55\ \ell$

30) Start with the largest value:

Yellow	(5)	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
Red	(2)	10		20		30		40		50		60		70		80		90
Green	(4)			20				40				60				80		

Ans : 4 times

Section C

1) Girls (Final round) → $\frac{1}{4} \times 108 = 27$

Boys (Final round) → $\frac{1}{5} \times 115 = 23$

Total children (Final round) → $27 + 23 = 50$

Fraction ⟶ $\frac{50}{223}$

2) 4 piece ⟶ 3 cuts ⟶ 12 min

1 cut ⟶ 4 m n
12 pieces ⟶ 11cuts ⟶ **44 min**

3) Answer : **6 : 7**

4) Andy : Ben

$\frac{2}{5} : \frac{3}{4}$

$= \frac{6}{15} : \frac{6}{8}$

Answer : **15 : 8**

5) $4 \times 4 = 16$
$16 \times 2 = 32$
$32 \times 24 =$ **768 cm²**

6) After water poured in,

Volume of water → $6 \times 8 \times 13 = 624$

Before water was poured in,

$624 - 288 = 336$

$336 \div 8 \div 6 =$ **7**

7)

Before		After	
Apples	: Oranges	Apples	: Oranges
5	: 3	3	: 5
= 25	: 15	9	: 15

25 – 9 = 16
16 units → 96
1 unit → 6

At first , 25 units → 25 x 6
= **150**

8) (a) Area of COD → 9 x 6 = 54
Length OD → 54 x 2 ÷6 = **12**

(b) length BC → 6 x 2 ÷ 4 = 3

shaded area → 3 x 12 x 2 = **72**

9) 2U = 24
1U → 24 ÷ 2 = 12
3U = 24
1U → 24 ÷ 3 = 8
12 – 8 = **4 years ago**

10)

4	**11**	14	5
6	13	12	3
9	2	7	16
15	8	1	10

(a) Finding the value of C & D
C– D = 15 – 3
= **12**

(b) ☺ = **34**

OR

C	19
A	23
B	27
D	1

$1 + 2 + 3 + \ldots + 14 + 15 + 16 = 136$
$4 + 14 + 5 + 6 + 13 + 12 + 9 + 2 + 16 + 8 + 1 + 10 = 100$
$A + B + C + D = 136 - 100 = 36$
$36 + 19 + 23 + 27 + 31 = 136$

☺ $= 136 \div 4 =$ **34**

11) $45 x 3 = $135
7 units → $800 - $135 = $665
1 unit → $665 ÷ 7 = $95
Stephanie → $95 x 4 = **$380**

12) Pears → $\frac{1}{5} = \frac{2}{10}$ Plums → $\frac{3}{10}$

$\frac{4}{5} \times 20 = 16$

$15u + 16 = 46$

$15u = 30$

$1u = 2$

Plum (left over) → 7×2
$= 14$

13) a) Area of rectangle PQRS → $6 \times 12 = 72$

Area of triangle ABC → $\frac{2}{3} \times 72 =$ **48 m²**

b) height of triangle ABC → $48 \times 2 \div 8 = 12$

unshaded area → $6 \times 6 = 36$

$\frac{1}{2} \times 4 \times 12 = 24$

$36 + 24 =$ **60 m²**

14) Head → 20cm
Tail → Head + ½ Body = Head + 2 Head
= 3 Heads
= 60 cm
Body → Head + Tail = 20 cm + 60 cm
= 80 cm
Body → Head + Head + ½ Body
½ Body → 2 Heads
Length of crocodile → 20cm + 60cm +80cm
= **160cm**

15) (a) 20.29 – 11.16 = 9.13

each book → 9.13 ÷ 11 =0.83

4 files → 12 books

0.83 x 12 = 9.96

11.16 – 9 .96 = **1.2 kg**

(b) 20.29 – 15 = 5.29

0.83 x 3 = 2.49

5.29 ÷ 2.49= 2.12

2 + 1 = **3**

16 Total number of sweets = 260 + 20 – 10
= 270

9U = 270
1U = 270 ÷ 9
= 30

Dolly = 4U
= 4 X 30
= 120

Charmaine = 30

Dolly – Charmaine = 120 – 30
= **90**

17 5A : 5B + 5C
2 : 3
x 6 x 6
12 : 18

5B : 5A + 5C
1 : 5
x 5 x 5
5 : 25

a) Total 30

$\frac{12}{30} = \frac{2}{5}$

b) 5B : 5C

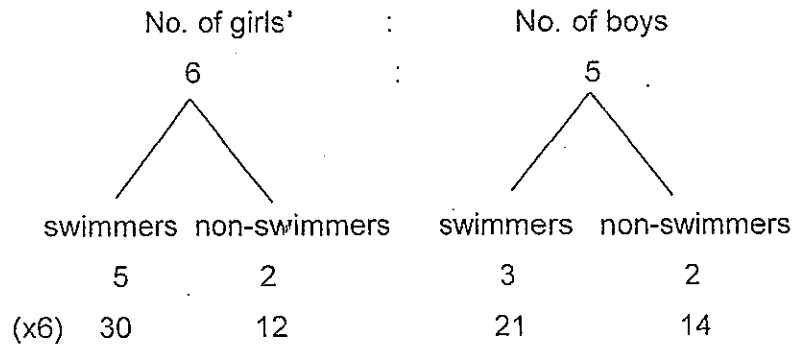
5 : 13

8u -> $104

1u -> $\frac{\$104}{8}$ = $13

13u -> $13 x 13 = $169

18



(a) Total units -> 42 + 35 = 77

Total Non-swimmers -> 12 + 14 = 26

Fractions -> $\frac{26}{77}$

(b) 14 units – 12 units = 2 units

2 units -> 30

1 unit -> 15

Swimmers -> 30 + 21 = 51 units

No. of swimmers -> 51 x 15

= 765