

SINGAPORE CHINESE GIRLS' SCHOOL

FIRST SEMESTRAL ASSESSMENT 2014

PRIMARY 5

MATHEMATICS
PAPER 1

BOOKLET A

Name : _____ ()

Class : Primary 5 SY

		Marks attained	Max Mark
Paper 1	Booklet A		20
	Booklet B		20
Paper 2			60
Total Marks			100

Parent's Signature

15 Questions
20 Marks

Total Time for Booklets A and B: 50 min

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Follow all instructions carefully.

Answer all questions.

You are not allowed to use a calculator

Booklet A

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 the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. (20 marks)

1. In 976 412, the digit 7 is in the _____ place.

- (1) hundreds
- (2) thousands
- (3) ten thousands
- (4) hundred thousands

2. What is the missing number in the box?

$$4\,000\,000 + 400\,000 + \boxed{} + 400 + 40 = 4\,404\,440$$

- (1) 0
- (2) 4000
- (3) 40 000
- (4) 400 000

3. Express $72 + \frac{5}{100} + \frac{3}{1000}$ as a decimal.

- (1) 72.8
- (2) 72.53
- (3) 72.053
- (4) 72.503

7. A box contains 28 pens. 8 of them are red and the rest are blue.
Find the ratio of the number of red pens to the number of blue pens.

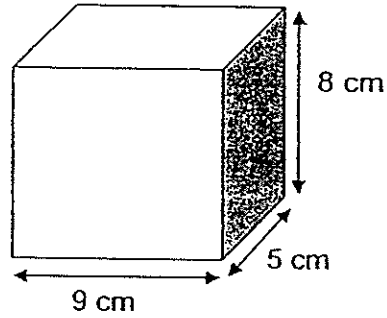
- (1) 2 : 5
- (2) 5 : 2
- (3) 2 : 7
- (4) 7 : 5

8. Lorraine poured $\frac{4}{5}$ l of grape syrup into 8 glasses.

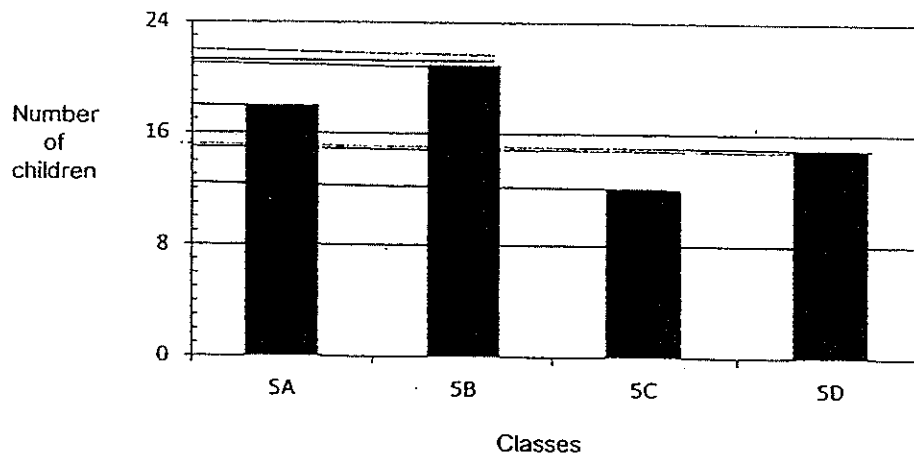
How much syrup was there in each glass?

- (1) 10 l
- (2) $6\frac{2}{5}$ l
- (3) $\frac{5}{32}$ l
- (4) $\frac{1}{10}$ l

9. Find the volume of the rectangular box shown below.



- (1) 45 cm^3
(2) 72 cm^3
(3) 320 cm^3
(4) 360 cm^3
10. Study the graph below.
The bar graph shows the number of children in Primary 5A, 5B, 5C and 5D who walk to school.



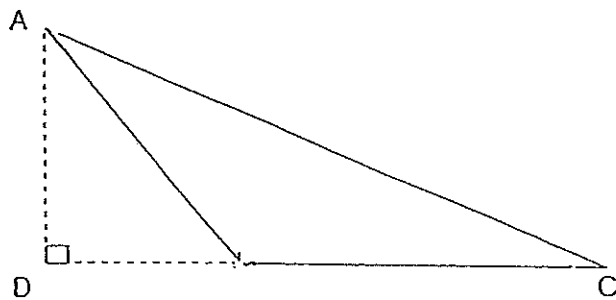
How many children in the 4 classes walk to school?

- (1) 63
(2) 65
(3) 66
(4) 68

11. Jane has twice as many beads as Suzan. Brenda has half as many beads as Suzan. If they have 420 beads altogether how many beads does Jane have?

- (1) 105
- (2) 140
- (3) 240
- (4) 336

12. In the figure shown below, not drawn to scale, BC is twice of DB. What is the ratio of area of Triangle ABC to area of Triangle ADC?



- (1) 1 : 2
- (2) 3 : 2
- (3) 2 : 1
- (4) 2 : 3

13. A rectangular container with a base area of 2000 cm^2 has 40 litres of water. What is the height of the water in the tank?

(1 litre = 1000 cm^3)

- (1) 20 cm
- (2) 25 cm
- (3) 40 cm
- (4) 50 cm

14. $\frac{2}{5}$ of Antonia's money is equal to $\frac{1}{3}$ of Debra's money.
What is the ratio of Antonia's money to Debra's money?

- (1) 1 : 1
- (2) 2 : 1
- (3) 5 : 3
- (4) 5 : 6

15. There are 9 lamp-posts on a street.
The distance between the 1st and the 9th lamp-post is 144 m.
What is the distance between the 4th and 7th lamp-post?

- (1) 48 m
- (2) 54 m
- (3) 64 m
- (4) 72 m

Booklet B

Name: _____ () Class: P5 SY

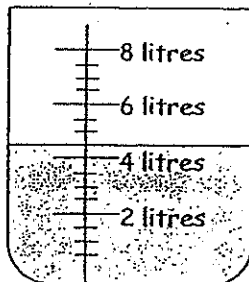
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this column

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. (10marks)

16. Write six million, twenty thousand and ninety-four in figures.

Ans: _____

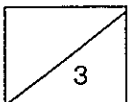
17. How many litres of water are there in the beaker shown below?



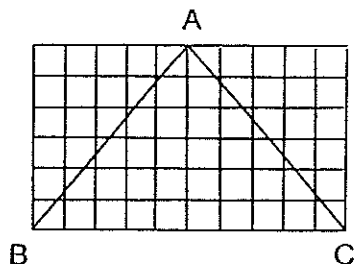
Ans: _____ l

18. Evaluate $49 + 17 - (32 + 16) \div 6$

Ans: _____

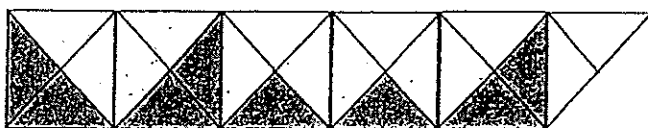


19. Find the area of triangle ABC given that each square measures 1cm by 1 cm.



Ans: _____ cm²

20. What fraction of the figure is unshaded?
Express the number of unshaded parts as a fraction of the shaded parts



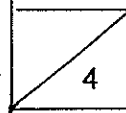
Ans: _____

21. Find the value of $\frac{5}{8} \times \frac{2}{7}$. Express the answers in its simplest form.

Ans: _____

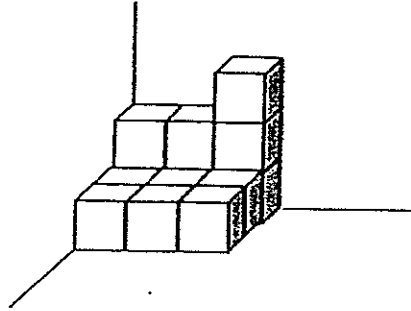
22. Pamela has 250 stickers. Britney has 130 stickers.
Find the ratio of the number of stickers Pamela had to the total number of stickers.

Ans: _____





23. The solid below is made up of 1-cm cubes.
Find its volume.



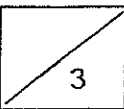
Ans: _____ cm³

24. A pail contains 840 cm³ of water when it is $\frac{2}{3}$ full.
Find the capacity of the pail.

_____ cm³

25. Tommy gave away $\frac{2}{3}$ of a cake and ate $\frac{1}{4}$ of it.
What fraction of the cake did he had he left?

Ans: _____



Questions 26 to 30 carry 2 marks each. Show your working clearly and write your answers in the spaces provided. For questions which require units, give your answers in the units stated. (10 marks)

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26. $\frac{1}{2}$ of a class are boys. $\frac{1}{3}$ of the boys wear spectacles.

What fraction of the class are boys who wear spectacles?

Ans: _____

27. Mrs Lee baked some strawberry and cheese muffins.

There were $\frac{3}{4}$ as much cheese muffins as strawberry muffins.

If there were 105 muffins altogether, how many strawberry muffins did Mrs Lee bake?

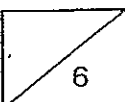
Ans: _____

28. In a fish tank, the ratio of the number of guppies to the number of angelfish is 4 : 5.

20 more guppies were put into fish tank and the ratio became 13 : 10.

How many guppies were there at first?

Ans: _____

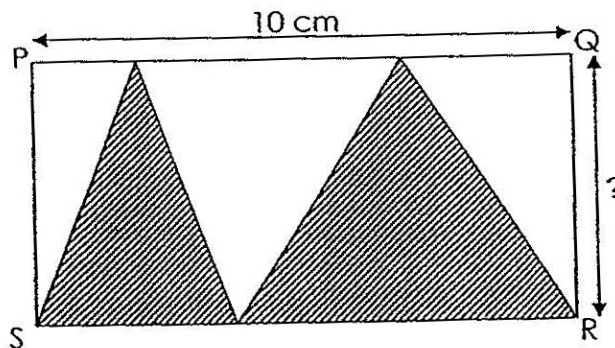


29. For every 4 wallets Tommy bought, he will buy 1 bag. Each wallet cost \$5 and each bag cost \$20. He spent \$80 altogether. How many bags did he buy?

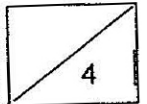
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Ans: _____

30. In the figure below, not drawn to scale, PQRS is a rectangle. The two shaded triangles have a total area of 55 cm^2 . What is the breadth of the rectangle?



Ans: _____ cm



Questions 1 to 5 carry 2 marks each. Show your working clearly in the space below each question and write your answers in the space provided. For questions which require units, give your answers in the units stated. (10 marks)

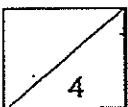
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1. Mr Wong distributed 2868 oranges equally among his 32 workers and had some oranges left. How many oranges did he have left?

Ans: _____

2. A container that is $\frac{1}{2}$ - filled contains 9 l of water. After some water is added into the container, the container becomes $\frac{7}{8}$ - filled. How many litres of water have been added?

Ans: _____ l



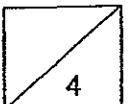
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this column

3. When Mr Gopal packed some buns into packs of 6, he was short of 4 buns. When he packed the buns into packs of 8, he had 2 buns left. What was the minimum number of buns Mr Gopal had?

Ans: _____

-
4. A carton can contain **either** a maximum of 74 peaches or a maximum of 56 apples. If there are already 24 peaches and 28 apples in the carton, how many more peaches can be put into the carton?

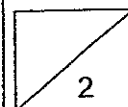
Ans: _____



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this column

5. $\frac{1}{4}$ of a number is 243 less than $\frac{5}{8}$ of the same number. What is the number?

Ans: _____



For questions 6 to 18, show your working clearly in the space below each question and write your answers in the spaces provided. The number of marks awarded is shown in brackets [] at the end of each question or part-question. (50 marks)

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this column

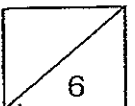
6. Lionel had 138 marbles and Kevin had 96 marbles. Both boys gave away an equal number of marbles. In the end, Lionel had thrice as many marbles as Kevin. How many marbles did each boy give away?

Ans: _____ [3]

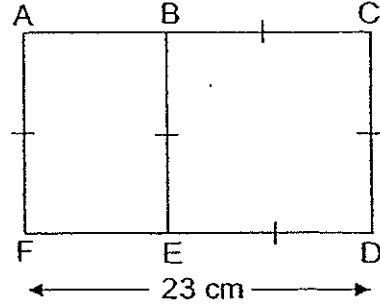
7. Jessie used some rose syrup, milk and water to make a drink. She used three times as much water as milk to make the drink. The amount of rose syrup used is $\frac{2}{3}$ the amount of milk used. If she made a total of 3500 ml of drink, how many millilitres of water did she use?

4

Ans: _____ [3]



8. The following figure, with a perimeter of 78 cm, is made up of a rectangle and a square. The length of FED is 23 cm. What is the area of Rectangle ACDF?

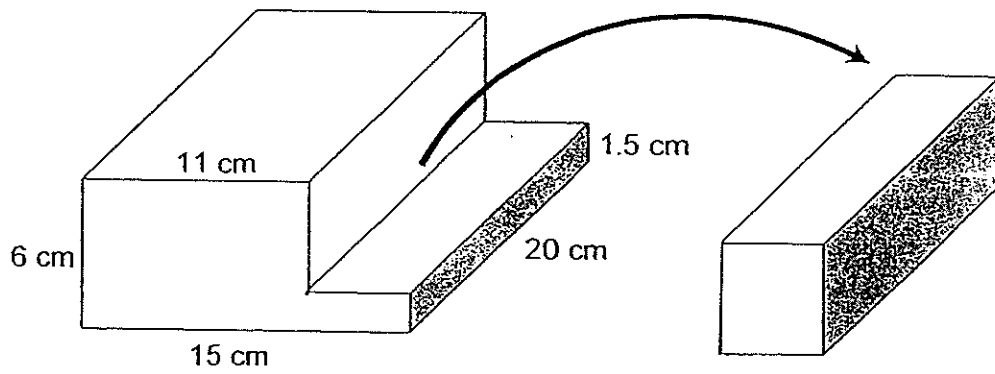


Ans: _____ [3]

9. Aishah had a total of $6\frac{3}{4}$ m of red and white cloth. She used $3\frac{1}{2}$ m of red cloth and $2\frac{3}{4}$ m of white cloth and was left with the same length of red and white cloth. What was the length of white cloth Mrs Lim had at first?
Aishah

Ans: _____ [3]

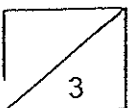
10. The figure below is not drawn to scale. Justin cut out a rectangular block from a wooden cuboid 15 cm long, 20 cm wide and 6 cm high as shown below. What is the volume of the remaining wooden block?



Remaining Wooden Block

Do not write in this column

Ans: _____ [3]



11. Benny received the same amount of salary in January and February.
In both months, he spent part of his salary and saved the rest.

In January, he saved $\frac{2}{3}$ of the amount that he spent.

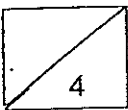
In February, he saved $\frac{4}{5}$ of the amount that he spent.

He saved \$150 more in February than in January.

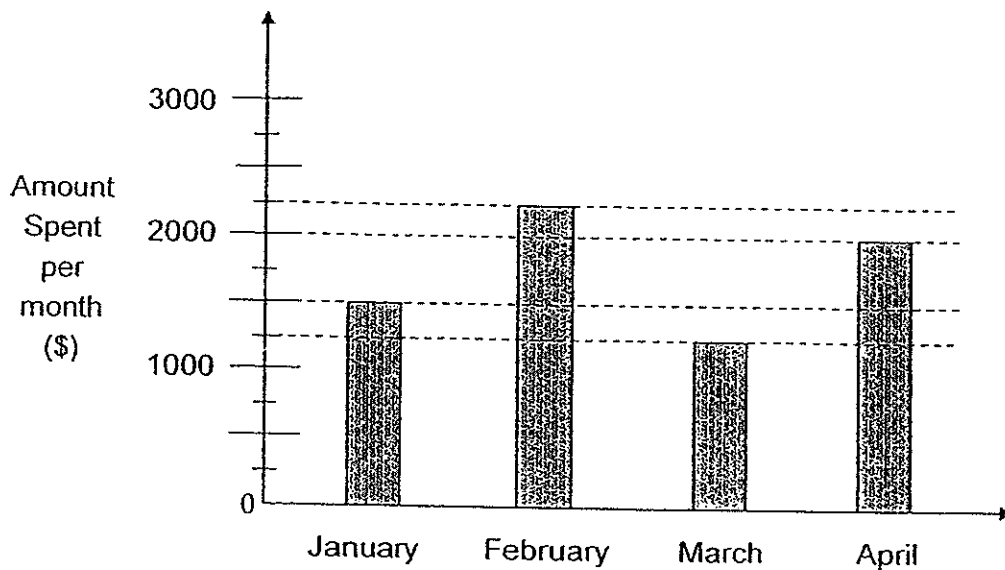
Find Benny's salary per month.

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this column

Ans: _____ [4]



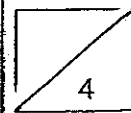
12. Marilyn earns \$3000 per month. The bar graph below shows the amount of money that she spent from January to April



- a) What is Marilyn's total savings in four months?
b) Express her total savings as a fraction of her total earnings in four months. (Express your answer in its lowest term)

Ans: _____ [2]

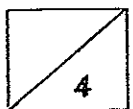
_____ [2]



13. Mr Ho had 108 cups. He found that some of the cups were cracked and had to throw them away. He sold $\frac{2}{3}$ of the remaining cups at \$4 each and the rest at \$5 each. He collected \$390. How many cups did he throw away?

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this column

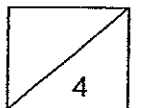
Ans: _____ [4]



14. Zoe baked some cupcakes. She gave her neighbours 84 cupcakes. She also gave $\frac{2}{5}$ of the remaining cupcakes to her aunt, after which, she was left with $\frac{1}{4}$ of the total number of number of cupcakes.
How many cupcakes did she give to her aunt?

Do not write in
this column

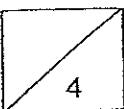
Ans: _____ [4]



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this column

15. A box contains chocolates and sweets in the ratio 2 : 5. When 36 chocolates are added to the box, there are 60 more sweets than chocolates in the box. Find the ratio of the number of chocolates to the number of sweets at the end. (Give your answer in its simplest form.)

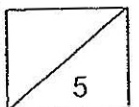
Ans: _____ [4]



16. The total mass of 8 tables and 7 benches is 603 kg. The mass of 2 benches is 8 kg more than the mass of each table. Find the total mass of 1 table and 1 bench.

Do not write in
this column

Ans: _____ [5]



17. Meiling used some toothpicks to form a series of squares. The first four figures are shown below. Study the pattern and answer the following questions.

Do not write in this column



Figure 1



Figure 2

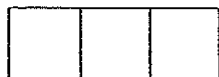


Figure 3



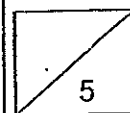
Figure 4

Figure	No. of squares	No. of toothpicks used
1	1	4
2	2	7
3	3	10
4	4	13
.	.	.
.	.	.
10	10	(a) _____

- How many toothpicks did Meiling use for Figure 10?
- If Meiling used 451 toothpicks to form a row of squares, how many squares are there in the row?

Ans: (a) _____ [2]

(b) _____ [3]



18. Hazel had the same number of purple beads, red beads and yellow beads. After giving away 152 yellow beads, some purple beads and red beads, she had 324 beads left.

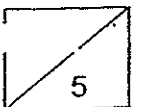
The remaining red beads were three times as many as the remaining purple beads. The remaining purple beads were 59 fewer than the remaining yellow beads.

- a) How many red beads were given away?
- b) Express the number of red beads given away as a fraction of the total number of beads given away.

Ans: (a) _____ [3]

(b) _____ [2]

End of Paper 2
~ Please check your work thoroughly. ~



Exam Paper 2014 Answer Sheet

School: SINGAPORE CHINESE GIRLS' SCHOOL

Subject: PRIMARY 5 MATHEMATICS

Term: SA1

Paper 1

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

16. 6020094

17. 4.5

18. 58

19. 30

20. $1\frac{3}{4}$

21. $\frac{5}{28}$

22. 25 : 38

23. 13

24. 1260

25. $\frac{1}{12}$

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

27. $7u \rightarrow 105$

$$1u \rightarrow 105 \div 7 = 15$$

$$4u \rightarrow 15 \times 4 = 60$$

28. $13u - 8u = 5u$

$$5u \rightarrow 20$$

$$1u \rightarrow 20 \div 5 = 4$$

$$8u \rightarrow 4 \times 8 = 32$$

29. $4w + 1b = \$5 \times 4 + \$20 = \$40$

$$\text{No. of gps} \rightarrow \$80 \div \$40 = 2.$$

$$1 \text{ gp} \rightarrow 1b$$

$$2 \text{ gp} \rightarrow 2b$$



30. $55 \times 2 = 110$
 $110 \div 10 = 11$

Paper 2

1. $2868 \div 32 = 89.625$
 $89 \times 32 = 2848$
R $\rightarrow 2868 - 2848 = 20$

2. $\frac{1}{2} = \frac{4}{8}$
 $\frac{4}{8} \rightarrow 9 \text{ litres}$
 $\frac{1}{8} \rightarrow 9 \text{ litres} \div 4 = 2.25 \text{ litres}$
 $\frac{7}{8} - \frac{4}{8} = \frac{3}{8}$
 $\frac{3}{8} \rightarrow 2.25 \text{ litres} \times 3 = 6.75 \text{ litres}$

3. 6, 12, 18, 24, 30, 36
(- 4) 2, 8, 14, 20, **26**, 32
8, 16, 24, 32, 40, 48
(+ 2) 10, 18, **26**, 34, 42, 50

4. P : A
74 : 56
37 : 28
Additional P $\rightarrow 37 - 24 = 13$

5. $\frac{5}{8} - \frac{2}{8} = \frac{3}{8}$
 $\frac{3}{8} \rightarrow 243$
 $\frac{1}{8} \rightarrow 81$
 $\frac{2}{8} \rightarrow 162$
 $162 \div \frac{2}{8} = 648$

6. Diff $\rightarrow 2u$
 $2u \rightarrow 138 - 96 = 42$
 $1u \rightarrow 42 \div 2 = 21$
Give away $\rightarrow 96 - 21 = 75$

7. $14u \rightarrow 3500\text{ml}$
 $1u \rightarrow 250\text{ml}$
Water $\rightarrow 250\text{ml} \times 9 = 2250\text{ml}$

8. P $\rightarrow 78\text{cm}$
2 length $\rightarrow 23 \times 2 = 46$
2 breadth $\rightarrow 78 - 46 = 32$
1 breadth $\rightarrow 32 \div 2 = 16$
Length $\rightarrow 23\text{cm}$
Breadth $\rightarrow 16\text{cm}$
Area $\rightarrow 23 \text{ cm} \times 16 \text{ cm} = 368\text{cm}^2$

9. $3\frac{1}{2}\text{m} + 2\frac{3}{4}\text{m} = 6\frac{1}{4}\text{m}$
 $1u \rightarrow 6\frac{3}{4}\text{m} - 6\frac{1}{4}\text{m} = 1\frac{1}{2}\text{m}$

$$\text{Remaining} \rightarrow \frac{1}{2}m \div 2 = \frac{1}{4}m$$

$$W \rightarrow (2\frac{3}{4} + \frac{1}{4})m = 3m$$

10. Wooden block $\rightarrow (20 \times 15 \times 6)\text{cm}^3 = 1800\text{cm}^3$

Cut out $\rightarrow (4.5 \times 4 \times 20)\text{cm}^3 = 360\text{cm}^3$

Remaining $\rightarrow (1800 - 360) = 1440\text{cm}^3$

11. Jan

Save : Spent : Salary

$$2 : 3 : 5 \text{ (x9)}$$

$$18 : 27 : 45$$

Feb

Save : Spent : Salary

$$4 : 5 : 9$$

$$20 : 25 : 45$$

$$20 - 18 = 2$$

$$2u \rightarrow 150$$

$$\text{Salary} \rightarrow \$150 \div 2 \times 45 = \$3375$$

12. (a) Total that she spent $\rightarrow 1500 + 2250 + 1250 + 2000 = 7000$

Total earnings $\rightarrow \$3000 \times 4 = \12000

Savings $\rightarrow \$12000 - \$7000 = \$5000$

(b) $\frac{5000}{12000} = \frac{5}{12}$

13. $\$4 \times 2 = \8

$$\$8 + 5 = \$13$$

$$\$390 \div \$13 = 30$$

$$30 \times 3 = 90$$

$$108 - 90 = 18$$

14. $\frac{1}{4}T \rightarrow 3u$

$$T \rightarrow 3u \times 4 = 12u$$

$$12u - 5u = 7u$$

$$7u \rightarrow 84$$

$$1u \rightarrow 12$$

$$\text{Aunt} \rightarrow 12 \times 2 = 24$$

15. $3u \rightarrow 36 + 60 = 96$

$$1u \rightarrow 96 \div 3 = 32$$

$$C \rightarrow 2 \times 32 + 36 = 100$$

$$S \rightarrow 32 \times 5 = 160$$

C : S

$$100 : 160$$

$$5 : 8$$

16. $1B \rightarrow 1u + 4\text{kg}$

$$7B \rightarrow 7u + 28\text{kg}$$

$$16u + 7u + 28\text{kg} = 603\text{kg}$$

$$23u \rightarrow (603 - 28)\text{kg} = 575\text{kg}$$

$$1u \rightarrow 575\text{kg} \div 23 = 25\text{kg}$$



$$1B \rightarrow 25 + 4 = 29\text{kg}$$

$$1T \rightarrow 25 \times 2 = 50$$

$$1B + 1T \rightarrow 29 + 50 = \mathbf{79\text{kg}}$$

$$17. (a) 10 \rightarrow 10 \times 3 + 1 = 31$$

$$(b) 3 \times n + 1 = 451$$

$$3 \times n \rightarrow 451 - 1 = 450$$

$$N \rightarrow 450 \div 3 = \mathbf{150}$$

$$18. (a) \text{Gave away} \rightarrow 264 - 53 \times 3 = 105$$

$$\text{Total give away} \rightarrow 152 + 211 + 105 = \mathbf{468}$$

$$(b) \frac{\text{R give away}}{\text{All give away}} = \frac{105}{468} = \frac{35}{156}$$

