

METHODIST GIRLS' SCHOOL

Founded in 1887



PRIMARY 5 SEMESTRAL ASSESSMENT 1 2014 MATHEMATICS PAPER 1

(BOOKLET A)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

The use of calculators is **NOT** allowed.

Name: _____ ()

Class: Primary 5. _____

Date: 15 May 2014.

This booklet consists of 5 printed pages including this page.

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

1 Find the value of $12 + 3 \times (31 - 25) \div 2$.

- (1) 15
- (2) 21
- (3) 40
- (4) 45

2 Round off 957 906 to the nearest thousand.

- (1) 957 910
- (2) 957 900
- (3) 958 000
- (4) 960 000

3 What's the missing number in the box?

$$\frac{12}{15} = \frac{\square}{25}$$

- (1) 22
- (2) 20
- (3) 5
- (4) 4

4 Chris, Daniel and Ernest bought a present for their mother.

Chris paid $\frac{1}{2}$ of the cost, Daniel paid $\frac{1}{5}$ of the cost and Ernest paid the rest.

What fraction of the present did Ernest pay?

- (1) $\frac{1}{3}$
- (2) $\frac{2}{7}$
- (3) $\frac{3}{10}$
- (4) $\frac{7}{10}$

5 Which one of the following fractions is the largest?

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

(2) $\frac{5}{6}$

(3) $\frac{6}{7}$

(4) $\frac{7}{8}$

6 Which one of the following fractions is greater than $\frac{2}{5}$?

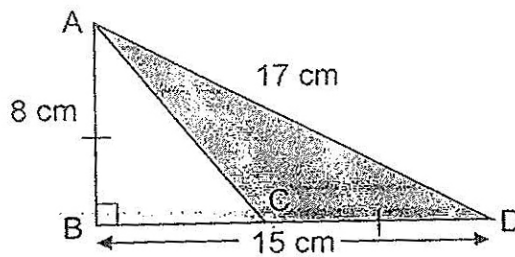
(1) $\frac{1}{3}$

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

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

(4) $\frac{2}{7}$

7 In the figure below, $AB = CD$. Find the area of the shaded triangle.



- (1) 28 cm^2
- (2) 32 cm^2
- (3) 60 cm^2
- (4) 68 cm^2

8 If $X:Y=2:7$ and $Z:X=4:3$, what is $X+Z:Y$?

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

9 Ben is 165 cm tall. David is 15 cm shorter than Ben. Carl is 10 cm taller than David. What is the ratio of Carl's height to David's height to Ben's height?

- (1) 33 : 32 : 30
- (2) 32 : 30 : 33
- (3) 35 : 30 : 33
- (4) 28 : 33 : 30

10 Fatimah made 1 800 ml of fruit punch using apple juice, orange juice and soda water in the ratio 3 : 2 : 4 respectively. How much soda water did she use?

- (1) 200 ml
- (2) 400 ml
- (3) 600 ml
- (4) 800 ml

11 There were 400 people at a concert. There were three times as many women as men. During the interval, $\frac{1}{3}$ of the women and $\frac{1}{2}$ of the men left the hall. How many more women than men were there after the interval?

- (1) 50
- (2) 100
- (3) 150
- (4) 200

- 12 Jennifer ate $\frac{1}{4}$ of a pie and shared the remainder equally among her 5 friends. What fraction of the cake did each friend receive?

- (1) $\frac{1}{20}$
- (2) $\frac{3}{20}$
- (3) $\frac{17}{20}$
- (4) $\frac{3}{4}$

- 13 The ratio of the number of T-shirts that Raj bought to the number of T-shirts that Ali bought was 3 : 4. Raj bought 9 T-shirts. If each T-shirt cost \$10, how much did Ali pay for the T-shirts that he bought?

- (1) \$30
- (2) \$40
- (3) \$90
- (4) \$120

14 $13 \times 4 + 13 \times 8 - 2 \times 12 = \square \times 4 + 12$

What is the missing number in the box?

- (1) 30
- (2) 33
- (3) 120
- (4) 132

- 15 The ratio of the sides of a right-angled triangle is 3 : 4 : 5. The perimeter of the triangle is 36 cm. What is the area of the triangle?

- (1) 54 cm^2
- (2) 67.5 cm^2
- (3) 90 cm^2
- (4) 108 cm^2

METHODIST GIRLS' SCHOOL

Founded in 1967



PRIMARY 5 SEMESTRAL ASSESSMENT 1 2014 MATHEMATICS

PAPER 1

(BOOKLET B)

Total Time for Booklets A and B: 50 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

The use of calculators is NOT allowed.

Name: _____ ()

Class: Primary 5. _____

NIGBY'S CENTRE

Date: 15 May 2014

Paper 1 Booklet A	/ 20
Paper 1 Booklet B	/ 20
Paper 2	/ 60
TOTAL	/ 100

This booklet consists of 7 printed pages including this page.

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. (10 marks)

Do not write in this space

16 Write five million, twenty thousand and fourteen in figures.

Ans: _____

17 Divide 3480 by 40.

Ans: _____

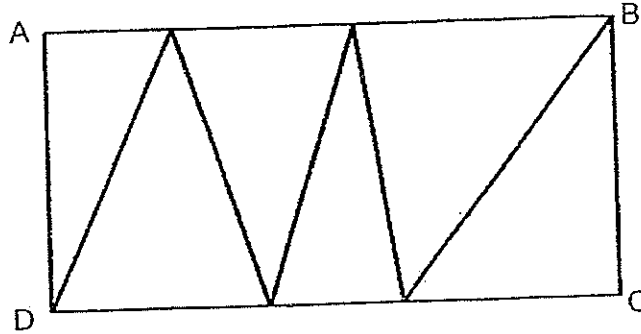
18 Ahmad, Ben and Charlie some marbles in the ratio 2 : 5 : 7. What fraction of the total number of marbles did Charlie receive? Give your answer in the simplest form.

Ans: _____

19 Mrs Tan packed $\frac{4}{5}$ kg of sweets into 8 bags. What is the mass of each bag of sweets? Leave your answer in the simplest form.

Ans: _____ kg

- 20 ABCD is a rectangle. What fraction of the rectangle is shaded?



Ans: _____

Do not write
in this space

- 21 The area of a square is 81 cm^2 . What is its perimeter?

Ans: _____ cm

- 22 Jack and Jill shared some stickers in the ratio of 3 : 7.
Jack gave $\frac{1}{6}$ of his stickers to Jill.
What was the ratio of the number of Jill's stickers to the number of Jack's stickers in the end?

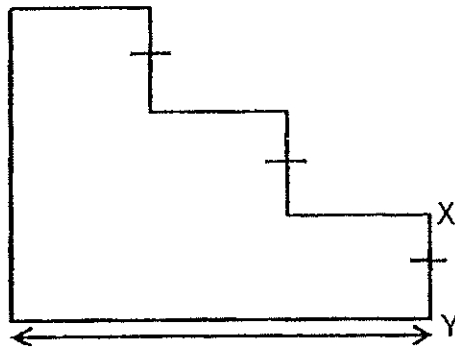
Ans: _____

23. Ali bought $5\frac{1}{2}$ kg of meat. He gave $\frac{1}{3}$ of it to his neighbour and $\frac{1}{3}$ of the remainder to Mr Lim. How much meat did he have left for himself? Give your answer as a mixed number in its simplest form.

Ans: _____ kg

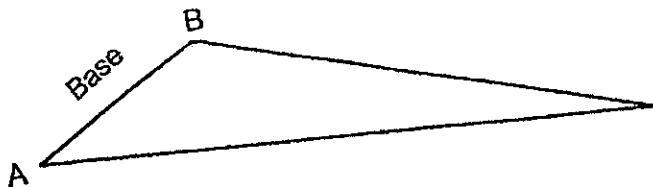
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in this

24. The perimeter of the figure below is 40 cm. Find the length of XY.



Ans: _____ cm

25. In the figure below, AB is the base of the triangle. Draw the height and label it CD.



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)

Do not write
in this space

- 26 The first of May falls on a Thursday. On which day of the week will 30 May fall on?

Ans: _____

- 27 At a bookshop, pens are sold in packs of three and rulers are sold in packs of five. The cost of a pack of pens is the same as the cost of 2 packs of rulers. Mrs Siva paid \$48 for 36 such pens. What was the cost of a pack of rulers?

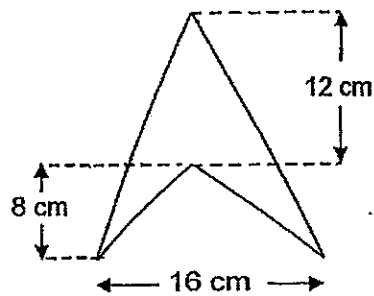
Ans: \$ _____

- 28 Hanny, Idris and Jaya shared $\frac{11}{12}$ kg of rice. Hanny took $\frac{1}{2}$ of the amount of rice. After Hanny had taken her share, Idris took $\frac{1}{4}$ of the amount of rice which remained and Jaya took the rest. How much rice did Jaya get?

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in this spa

Ans: _____ kg

- 29 Find the area of the figure below.



Ans: _____ cm²

- 30 Farid had 75 stamps. He kept $\frac{2}{5}$ of the stamps and gave the rest to James and Kevin in the ratio 2 : 3 respectively. How many stamps did Kevin get?

Do not write
in this space

Ans: _____

END OF PAPER

METHODIST GIRLS' SCHOOL

Founded in 1887



PRIMARY 5 SEMESTRAL ASSESSMENT 1 2014 MATHEMATICS

PAPER 2

Duration: 1 h 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

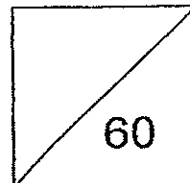
Write your answers in this booklet.

The use of an approved calculator is expected, where appropriate.

Name: _____ ()

Class: Primary 5. _____

Date: 15 May 2014



This booklet consists of 15 printed pages including this page.

Questions 1 to 5 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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margin

- 1 Muffins are sold at \$1.50 each or 3 for \$4. Uma paid \$39 for the muffins she bought.
What was the largest possible number of muffins that Uma bought?

Ans: _____

- 2 Three similar jugs are filled with water.
The amount of water in Jug A is three times as much as the water in Jug B.
The ratio of the amount of water in Jug C to the amount of water in A is 3 : 5.
What is the ratio of the amount of water in Jug C to the total amount of water in Jugs A and B.

Ans: _____

- 3 Geraldine spent $\frac{5}{8}$ of her money on a dress and $\frac{2}{3}$ of the remainder on a pair of shorts. She then had \$25 left. How much did she have at first?

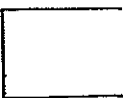
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in this space

Ans: \$ _____



- 4 The length of a rectangle is 3 times its breadth.
The area of the rectangle is 192 cm^2 .
What is the breadth of the rectangle?

Ans: _____ cm



- 5 The sum of 2 numbers, M and N, is $9\frac{1}{2}$.
The difference between M and N is 2.
What is the smaller number?
Give your answer in the simplest form.

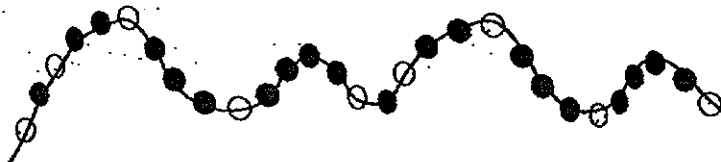
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Ans: _____

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

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- 6 Alice made a necklace using black and white beads. She strung the beads in the following pattern. She used a total of 98 beads. How many white beads were there in the necklace?

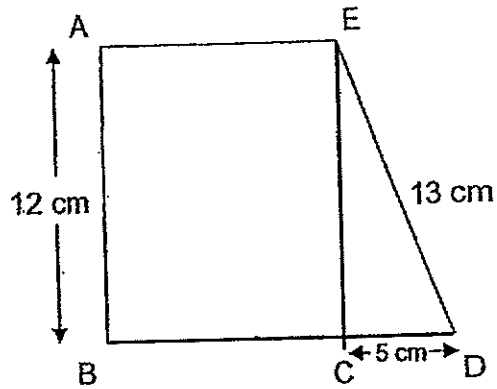


Ans: _____ [3]

- 7 There were 990 green and red beans in a basket. $\frac{1}{5}$ of the green beans was equal to $\frac{1}{4}$ of the red beans. How many red beans were in the basket?

Ans: _____ [3]

- 8 The area of triangle CDE is $\frac{1}{4}$ the area of rectangle ABCE.
What is the length of BC?



Do no
in this

Ans: _____ [3]



- 9 The ratio of the number of boys to the number of girls in a dance academy was 2 : 9. There were 35 more girls than boys.
- (a) How many boys were there at the dance academy?
- (b) How many children were there altogether?

Do not write
in this space

Ans: (a) _____ [2]

(b) _____ [1]

- 10 Ali had \$130 and Xiao Ling had \$100.
After they each donated an equal amount of money to charity, Xiao Ling had $\frac{1}{4}$ as much money as Ali.
How much money had Ali left?

Ans: _____ [3]

- 11 A group of tourists ordered a set lunch each at a restaurant.
The cost of the set lunch is \$18 per person.
For every 8 paying customers, the ninth customer does not need to pay.
The group of tourists paid \$828 altogether.
How many tourists were there in the group?

Do not
in this

Ans: _____ [4]



- 12 Sumei had some money.
She spent an equal amount of money every day.
At the end of the fourth day, she had $\frac{2}{3}$ of her money left.
At the end of the seventh day, she had \$20 left.
How much money did she have at first?

Do not write
in this space

Ans: _____ [4]

13 A bottle completely filled with soda has a mass of 950 g.

When it is $\frac{2}{7}$ - filled with soda, the mass is 550 g.

- (a) What is the mass of the empty bottle?
- (b) What is the mass of the bottle when it is half-filled with soda?

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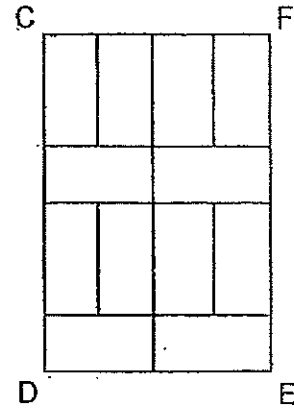
Ans: (a) _____ [2]

(b) _____ [2]



- 14 Rectangle CDEF is divided into 12 identical small rectangles as shown below.
The perimeter of rectangle CDEF is 160 cm.

- (a) What is the length of rectangle CDEF?
(b) What is the area of rectangle CDEF?



Do not write
in this space

Ans: (a) _____ [3]

(b) _____ [1]



- 15 There were 83.1 ℓ of water in a storage tank. Kassim poured some of it equally into 9 similar big pails and 7 similar small pails. The amount of water in each big pail is twice as much as the amount of water in each small pail. When all the big and small pails were filled, he had 5.85 ℓ of water left. How much water was there in 1 big pail? Give your answer in litres.

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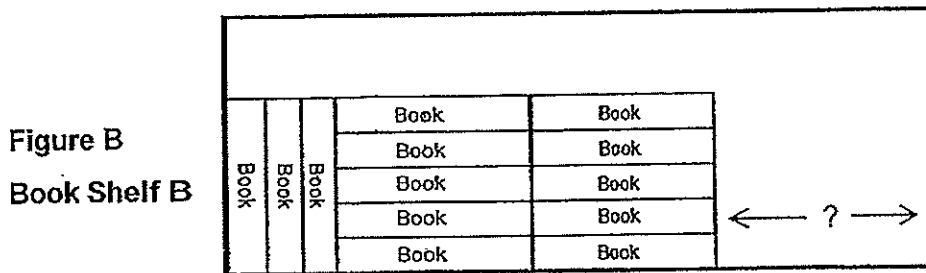
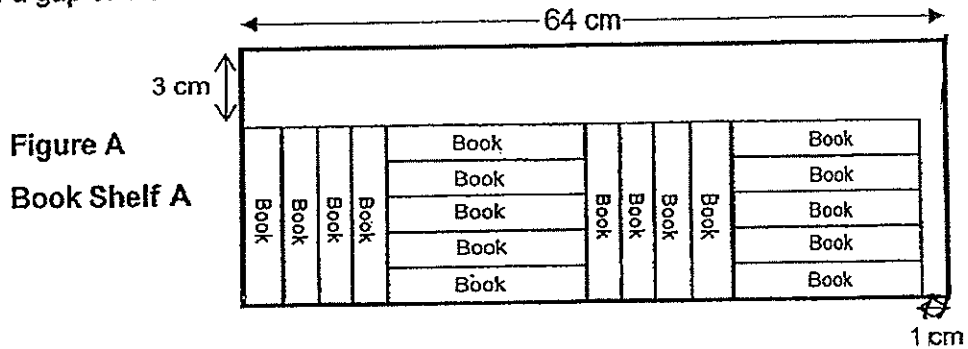
Ans: _____ [4]



16

Eighteen similar-sized books are arranged in Book Shelf A as shown in Figure A. Thirteen of these books are then re-arranged in Book Shelf B as shown in Figure B. Both the book shelves are of the same size and are 64 cm long. The first arrangement in book shelf A leaves a gap of 3 cm at the top and a gap of 1 cm at the side.

Do not write in this space



- (a) In the arrangement shown in book shelf B, what is the width of the gap at the side?
 (b) What is the height of the book shelf?

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)



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17 Mrs Tan bought a tin of biscuits.

Her son filled his lunch box with $\frac{1}{5}$ of the biscuits and took an additional 5 biscuits for his best friend.

Her daughter filled her lunch box with $\frac{1}{5}$ of the remaining biscuits and packed another 10 biscuits for her friends.

There were 18 biscuits left.

- (a) How many biscuits did Mrs Tan's daughter take for herself and her friends?
(b) How many biscuits were there at first?

a) _____ [3]

b) _____ [2]

Ans: _____ [5]



- 18 George saved 10-cent, 20-cent and 50-cent coins in his piggy bank in the ratio 20 : 15 : 8.
The value of all the 20-cent coins was \$90.

- (a) How many coins were there in the piggy bank?
(b) What was the value of the 50-cent coins?

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Ans: (a) _____ [3]

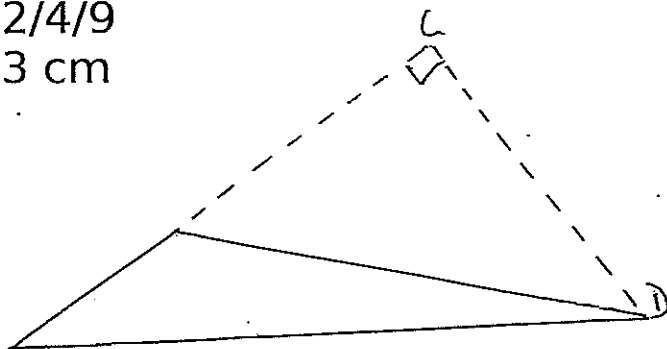
(b) _____ [2]



END OF PAPER

Methodist Girls' School
Semestral Assessment 1 2014
Primary 5

- 1) 2
- 2) 3
- 3) 2
- 4) 3
- 5) 4
- 6) 3
- 7) 2
- 8) 1
- 9) 2
- 10) 4
- 11) 3
- 12) 2
- 13) 4
- 14) 1
- 15) 1
- 16) 5 020 014
- 17) 87
- 18) $\frac{1}{2}$
- 19) $\frac{1}{10}$ kg
- 20) $\frac{1}{2}$
- 21) 36 cm
- 22) 3 : 1
- 23) $\frac{2}{4/9}$
- 24) 3 cm
- 25)



26) There are 7 days in a week.

$$30/7 = 4 \text{ R } 2$$

If 1 May falls on a Thursday then 7 May will fall on Wednesday. Hence, 2 days later will fall on Friday.

27) $36/3 = 12$ packs

$$\$48/12 = \$4$$

$$\$4/2 = \$2$$

28) $1/2 * 11/12 = 11/24$ (Hanny)

$$11/12 - 11/24 = 11/24$$

$$1/4 * 11/24 = 11/96$$
 (Idris)

$$11/24 + 11/96 = 55/96$$

$$11/12 - 55/96 = 11/32$$
 (Jaya)

29) $1/2 * 16 * 20 = 160$

$$1/2 * 16 * 8 = 64$$

$$160 - 64 = 96 \text{ sq cm}$$

30) $75/5 = 15$

$$15 * 2 = 30$$

$$75 - 30 = 45$$

$$45/5 = 9$$

$$9 * 3 = 27$$

Paper 2

1) $39/4 = 9 \text{ R } 3$

$$9 * 3 = 27$$

$$3/1.5 = 2$$

$$27 + 2 = 29$$

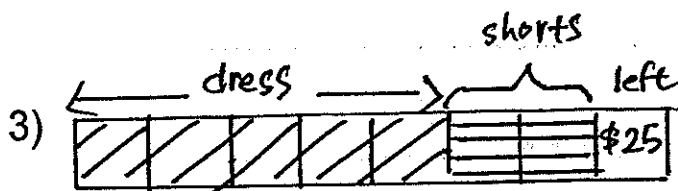
2) A : B : C

$$3 : 1$$

$$5 : 3$$

$$15 : 5 : 9$$

$$9 : 20$$



$$25 \times 8 = 200$$

4) $192/3 = 64$

$$64 = 8 \times 8$$

The breadth is 8cm.

5) $9\frac{1}{2} - 2 = 7\frac{1}{2}$

$$(7\frac{1}{2})/2 = 3\frac{3}{4}$$

6) 4 whites + 10 blacks = 14 beads

$$98/14 = 7$$

$$7 \times 4 = 28$$

7) $990/9 = 110$

$$110 \times 4 = 440$$

8) $\frac{1}{2} \times 5 \times 12 = 30$

$$30 \times 4 = 120$$

$$120/12 = 10\text{cm}$$

9) B : G

$$2 : 9$$

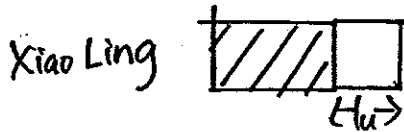
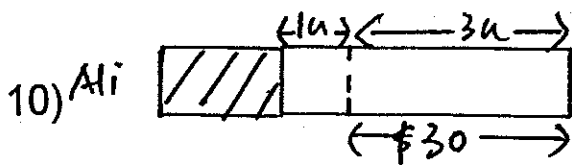
a) $9 - 2 = 7$

$$35/7 = 5$$

$$5 \times 2 = 10 \text{ boys}$$

b) $9 + 2 = 11$

$$5 \times 11 = 55 \text{ children}$$



$$30/3 = 10$$

$$10 + 30 = \$40 \text{ left}$$

11) $18 \times 8 = 144$

$$828 / 144 = 5 \text{ R}108$$

$$108 / 18 = 6 \text{ groups}$$

$$5 \times 9 = 45$$

$$45 + 6 = 51 \text{ tourists}$$

12) $1 - 2/3 = 1/3$

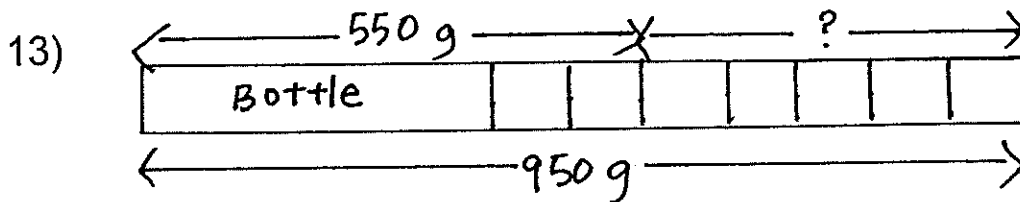
$$(1/3) / 4 = 1/12$$

$$1/12 \times 7 = 7/12$$

$$1 - 7/12 = 5/12$$

$$20/5 = 4$$

$$4 \times 12 = \$48 \text{ at first}$$



a) $950 - 550 = 400$

$$400 / 5 = 80$$

$$80 \times 2 = 160$$

$$550 - 160 = 390 \text{ (empty bottle)}$$

b) $3/1/2 \times 80 = 280$

$$280 + 390 = 670$$

14) 1 length = 2 breadths

a) Perimeter = 6 lengths + 8 breadths
 = 6 lengths + 4 lengths

$$10 \text{ lengths} = 160$$

$$1 \text{ length} = 160 / 10 = 16$$

$$\text{Length of rectangle CDEF} = 16 \times 2 + 8 + 8 = 48 \text{ cm}$$

14b) Breadth of rectangle = $16 \times 2 = 32 \text{ cm}$
Area of rectangle CDEF = $48 \times 32 = 1536 \text{ sq cm}$

15) $83.1 - 5.85 = 77.25$
 $77.25 / 25 = 3.09$
 $3.09 \times 2 = 6.18 \text{ litres}$

16) 1 length = 5 breadths

a) $64 - 1 = 63$
 $5 \times 2 = 10$
 $10 + 4 + 4 = 18$
 $63 / 18 = 3.5$
 $3.5 \times 13 = 45.5$
 $64 - 45.5 = 18.5 \text{ cm}$

b) $3.5 \times 5 = 17.5$
 $17.5 + 3 = 20.5 \text{ cm}$

17a) $18 + 10 = 28$
 $28 / 4 = 7$
 $7 + 10 = 17 \text{ (daughter \& friend)}$

b) $17 + 18 = 35$
 $35 + 5 = 40$
 $40 / 4 = 10$
 $10 + 5 = 15 \text{ (son \& friend)}$

18) $10c : 20c : 50c$
 $20 : 15 : 8$

a) $9000 / 20 = 450$
 $450 / 15 = 30$
 $20 + 15 + 8 = 43$
 $43 \times 30 = 1290$

b) $8 \times 30 = 240$
 $240 \times 0.50 = \$120 \text{ (50c)}$

