METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

MID-YEAR ASSESSMENT 2015
PRIMARY 6
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 6._____

Date: 12 May 2015

This booklet consists of 6 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 correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(20 marks)

---

1 The length of the whiteboard in the classroom is about _____.

(1) 3 m
(2) 10 m
(3) 20 m
(4) 30 m

2 Round off 3 587 614 to the nearest ten thousand.

(1) 3 580 000
(2) 3 588 000
(3) 3 590 000
(4) 3 600 000

3 Express 4 tens, 42 tenths and 102 thousandths as a decimal.

(1) 4.522
(2) 40.522
(3) 44.302
(4) 45.22

4 Simplify $7p + 12 - 4p - 9$

(1) $3p + 3$
(2) $3p + 21$
(3) $11p + 3$
(4) $11p + 21$

(Go on to the next page)

5 If 125% of a number is 100, what is the number?

(1) 0.8
(2) 1.25
(3) 80
(4) 125

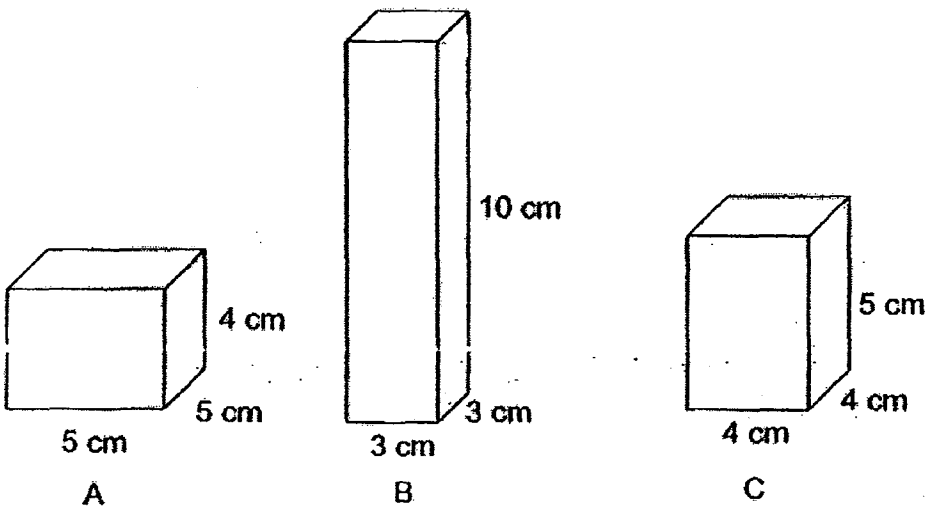
6 There are 60 members in a choir. 36 of them are boys.
What is the ratio of the number of girls to the number of boys?

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

7 Which of the following is the same as 7040 g?

(1) 7 kg 4 g
(2) 7 kg 40 g
(3) 70 kg 4 g
(4) 70 kg 40 g

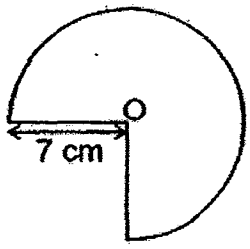
8 Arrange the tanks below according to their volume, beginning with the smallest.



	Smallest		Largest
(1)	A,	B,	C
(2)	A,	C,	B
(3)	B,	C,	A
(4)	C,	B,	A

9 Find the perimeter of the figure shown below. O is the centre of the circle.

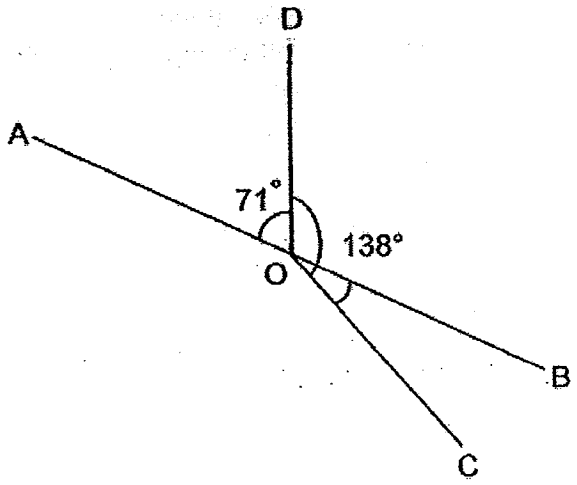
(Take $\pi = \frac{22}{7}$)



(1) 33 cm
(2) 40 cm
(3) 47 cm
(4) 58 cm

(Go on to the next page)

10 In the figure below, AB is a straight line. $\angle AOD = 71°$ and $\angle COD = 138°$. Find $\angle BOC$.



(1) 13°
(2) 29°
(3) 42°
(4) 67°

11 Mala is 11 years old now. Her mother is 25 years older than her. What will their total age be in 4 years' time?

(1) 36
(2) 47
(3) 51
(4) 55

12 Megan had 16 pink beads and 24 yellow beads. She bought another 12 yellow beads. How many more pink beads does she have to buy so that the ratio of beads which are pink to yellow does not change?

(1) 8
(2) 12
(3) 20
(4) 28

13 Su Ling ate $\frac{1}{2}$ of the sweets and $\frac{4}{5}$ of the cookies she bought from the shop. She then had an equal number of sweets and cookies left. Express the number of cookies as a fraction of the number of sweets

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

(2) $\frac{3}{5}$

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

(4) $\frac{5}{3}$

14 The ratio of the number of teachers to the number of pupils at a concert was 2 : 5. The ratio of the number of boys to the number of girls was 1 : 4. There were 120 more girls than boys at the concert. How many people were at the concert altogether?

(1) 150
(2) 200
(3) 210
(4) 280

15 Noel has the same number of $2 notes and $5 notes in his wallet. He has a total of $70 in his wallet. How many notes are there in Noel's wallet?

(1) 10
(2) 14
(3) 20
(4) 35

(Go on to Booklet B)

METHODIST GIRLS' SCHOOL (PRIMARY)

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MID-YEAR ASSESSMENT 2015
PRIMARY 6
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 6._____

Date: 12 May 2015

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

This booklet consists of 8 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)

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16 What is the missing number in the box?

$88 \times 1000 + 12 \times 1000 = \square \times 1\,000 - 10 \times 1\,000$

Ans: _____

17 Evaluate $40 \div 8 + (45 - 5) - 3 \times 2$

Ans: _____

18 How many ninths are there in $2\frac{1}{3}$?

Ans: _____

(Go on to the next page)

19 Express $2\frac{5}{9}$ as a decimal correct to 2 decimal places.

Ans: _____

20 A printer cost $200. During a sale, it cost $140. What was the percentage discount given for the printer?

Ans: _____%

21 100 g of red beans cost $0.50.
Mrs Neo bought 1.6 kg of red beans.
How much did she spend?

Ans: $_____

(Go on to the next page)

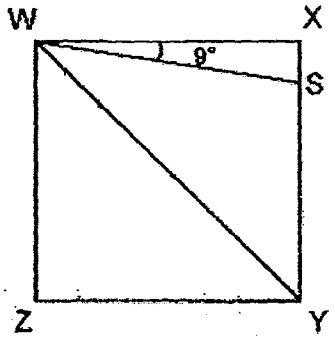
22 Alex, Ben and Collin shared the cost of a present in the ratio 1 : 2 : 5 respectively. What fraction of the cost of present is Collin's share?

Ans: _____

23 The ratio of the length of a rectangle to the breadth of the rectangle is 4 : 1. The perimeter of the rectangle is 2 m. Find the breadth of the rectangle.

Ans: _____ cm

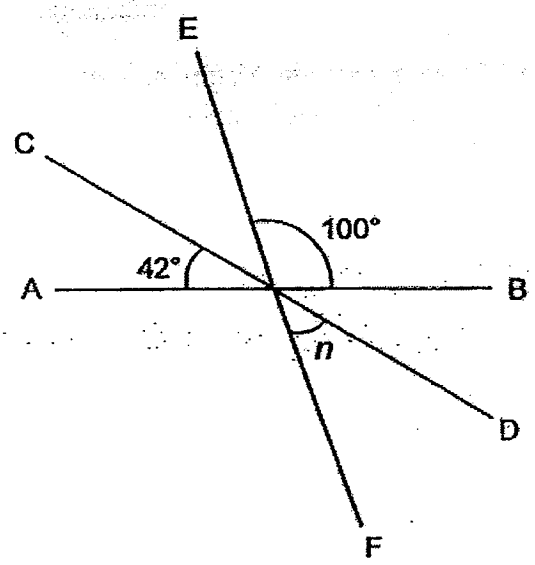
24 In the figure below, WXYZ is a square and $\angle XWS = 9°$. Find $\angle SWY$.



Ans: _____ °

(Go on to the next page)

25 In the figure below, AB, CD and EF are straight lines.
Find $\angle n$.



Ans: _____ °

(Go on to the next page)

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.

(10marks)

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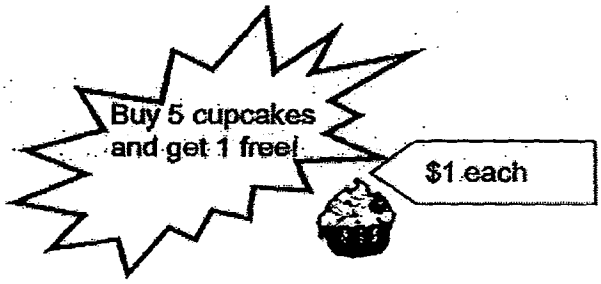
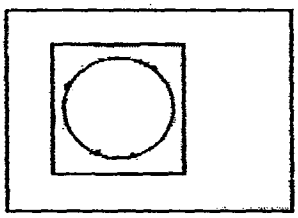
26 At a bakery, cupcakes are sold at the price shown below. Mrs Koh needs 20 cupcakes for her daughter's birthday party. What is the least amount of money she will have to spend?



Ans: $_____

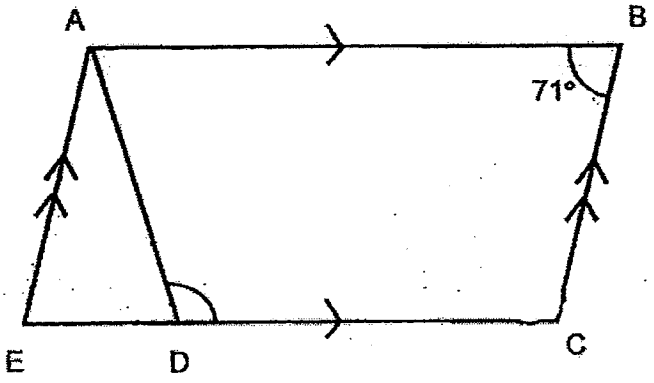
27 Bala drew a circle, a square and a rectangle on a piece of paper as shown below. The ratio of the area of the circle to the area of the square to the area of the rectangle is 5 : 9 : 27. What is the ratio of the shaded part to the area of the unshaded part?



Ans: _____

(Go on to the next page)

28 ABCE is a parallelogram. ADE is an isosceles triangle. $\angle ABC = 71°$.
Find $\angle ADC$.



Ans: _____ °

29 Hani bought 5 caps at an average price of $30.
After buying another cap, the average price of all the caps became $29.
How much did the 6th cap cost?

Ans: $_____

(Go on to the next page)

30 The price of a child ticket to the zoo is $z. An adult ticket costs thrice as much as a child ticket. Mandy buys tickets for two adults and three children. She gives the cashier $100. How much change, in terms of z, will she receive?

Ans: $ _____

End of Paper

METHODIST GIRLS' SCHOOL (PRIMARY)

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MID-YEAR ASSESSMENT 2015
PRIMARY 6
MATHEMATICS

PAPER 2

Duration: 1h ~~15~~ 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 6._____

Date: 12 May 2015

60

This booklet consists of 16 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)

Do not write in this space

1

Ahmad, John and Ming shared the cost of 21 highlighters in the ratio 2 : 3 : 5 respectively. How much did Ming pay?

Ans: $ _____

2 Jenny bought $\frac{3}{4}$ kg of sweets. She gave $\frac{3}{20}$ kg of it to her sister. She then distributed the remaining sweets to her friends. Each friend received $\frac{1}{10}$ kg of sweets. How many friends did Jenny give her sweets to?

Ans: _____

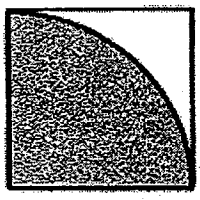
(Go on to the next page)

3 Abigail saved $90 in June. This was 20% more than her savings in May. What was Abigail's savings in May?

Do not write in this space

Ans: $ _____

4 A quadrant was drawn inside a square as shown below. The area of the square is 49 cm^2. Find the area of the shaded part. (Take $\pi = \frac{22}{7}$)

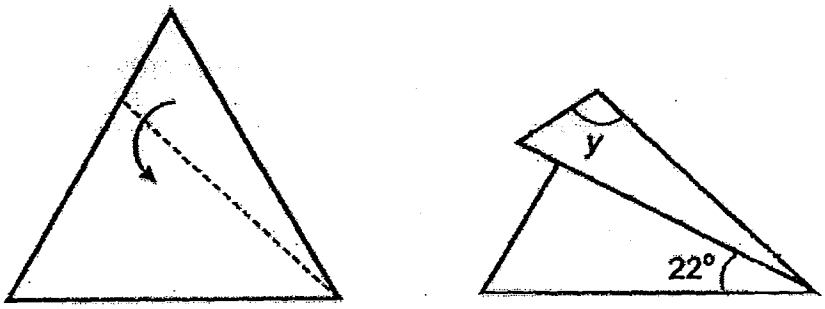


Ans: _____ cm^2

(Go on to the next page)

5 The diagram below shows an equilateral triangle. It is folded along the dotted line as shown below. Find $\angle y$.

Do not write in this space



Ans: _____ °

(Go on to the next page)

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)

Do not write in this space

6 At a bakery, Janice paid \$14.75 for 1 chicken pie and 9 egg tarts.
Belle paid \$18.50 for 1 chicken pie and 12 egg tarts.
Find the cost of 5 chicken pies.

Ans: _____ [3]

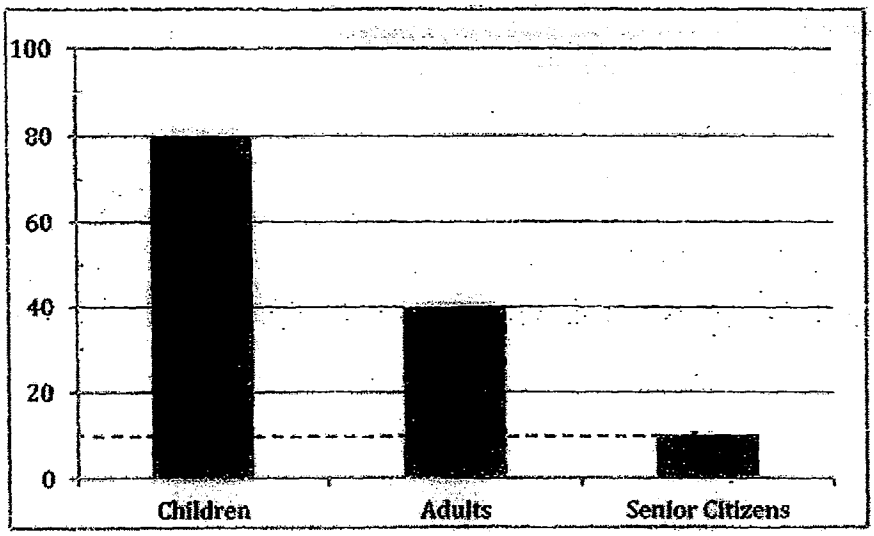
7 A seamstress had some buttons.
She used $\frac{1}{7}$ of them on Monday and $\frac{1}{6}$ of the remaining buttons on Tuesday. She bought another 144 buttons and then had as many buttons as she had at first. How many buttons did she have at first?

Ans: _____ [3]

(Go on to the next page)

8 The bar graph below shows the number of visitors to a theme park in one day.

Do not write in this space



(a) Each visitor needed a ticket to enter the theme park.
How many tickets were sold altogether?

(b) The theme park collected $3 480 from the sale of tickets.
The ratio of the price of each child ticket to each adult ticket to each senior citizen ticket is in the ratio 2 : 3 : 1. How much money was collected from the sale of the children's tickets?

Ans: (a) _____ [1]

(b) _____ [2]

(Go on to the next page)

9 Nell had 25% of the number of stickers Rani had.
Rani had 20% less stickers than Weiming .
If Nell had 45 stickers, how many stickers did Weiming have?

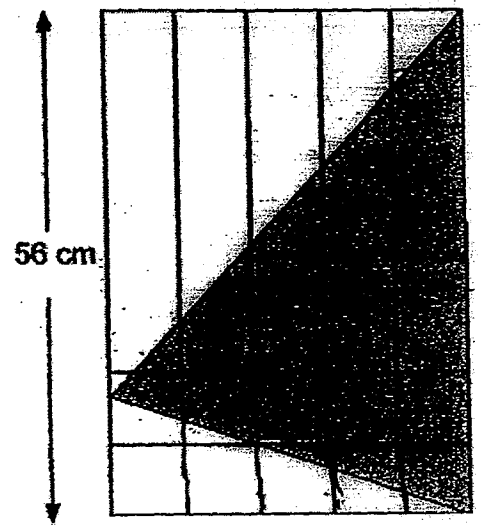
Do not write in this space

Ans: _____ [3]

(Go on to the next page)

10 The figure below is made up of 7 identical rectangles.
Find the area of the shaded triangle.

Do not write in this space

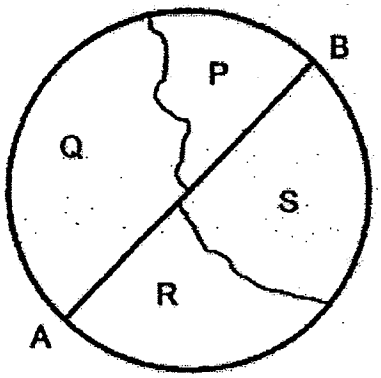


Ans: _____ [3]

(Go on to the next page)

11 The figure below shows a circle that is divided into 4 parts, P, Q, R and S. AB is the diameter of the circle. The ratio of Area P to Area Q is 2 : 5 and the ratio of Area Q to Area R is 3 : 2. Area S is 363 cm^2.
Find the area of the circle.

Do not write in this space



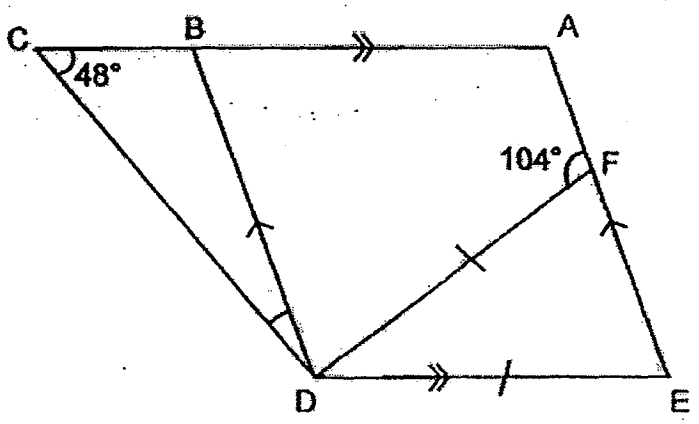
Ans: _____ [4]

(Go on to the next page)

12 In the figure below, ACDE is a trapezium and DEF is an isosceles triangle. $\angle ACD = 48°$, $\angle AFD = 104°$ and DB // EA.

(a) Find $\angle FDE$

(b) Find $\angle BDC$



Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

13 There were a total of 186 local and foreign stamps in a stamp album. After $\frac{1}{2}$ of the local stamps and $\frac{1}{3}$ of the foreign stamps were sold, there were 109 stamps left.

(a) How many foreign stamps were sold?

(b) How many local stamps were left?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [2]

(Go on to the next page)

14 The table below shows the number of books sold at a bookstore in a week.

Do not write in this space

Day	Number of books sold
Monday to Friday	$5b$ per day
Saturday	$4b - 5$
Sunday	$3b + 8$

(a) What was the total number of books sold from Monday to Sunday? Express your answer in terms of b in the simplest form.

(b) If $b = 30$, how many more books were sold on Saturday than on Sunday?

Ans: (a) _____ [2]

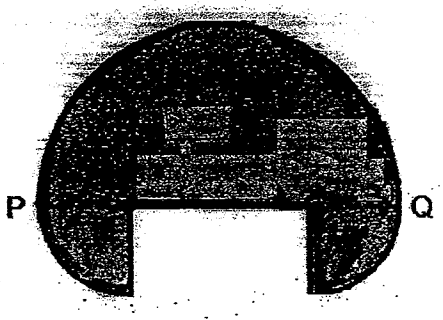
(b) _____ [2]

(Go on to the next page)

15 The figure below is made up of a semicircle and 2 quarter circles. PQ is 20 cm. The ratio of the radius of the semicircle to the radius of the quarter circle is 2 : 1.

(a) Find the perimeter of the figure.

(b) Find the area of the figure.
(Take $\pi = 3.14$)



Do not write in this space

Ans: (a) _____ [3]

(b) _____ [2]

(Go on to the next page)

16 Study the pattern below.

Do not write in this space

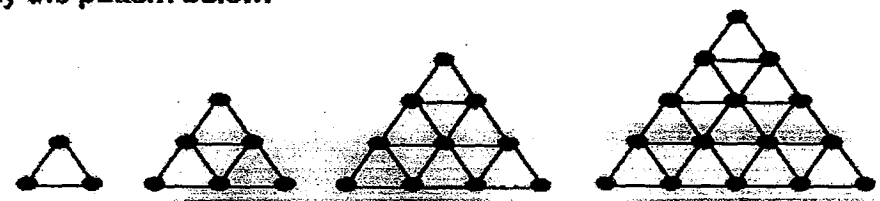


Figure 1 Figure 2 Figure 3 Figure 4

Figure	Number of dots	Number of sticks	Number of triangles
1	3	3	1
2	6	9	4
3	10	18	9
4	15	30	16
:	:	:	:
6	28	(a) ?	36
:		:	:
11	:	:	(b) ?

(a) How many sticks are there in Figure 6?

(b) How many triangles are there in Figure 11?

(c) How many dots are there in Figure 15?

Ans: (a) _____ [1]

(b) _____ [1]

(c) _____ [2]

(Go on to the next page)

17 Denise and Ellen had some savings at first.
40% of Denise's savings was equal to 25% of Ellen's ~~money~~ savings.
Then, Denise received $40 from her father and her savings increased by 5%.

(a) How much money did Denise have in the end?

(b) How much money must Ellen give to Denise so that she will have 12% more money than Denise in the end?

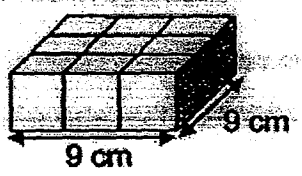
Do not write in this space

Ans: (a) _____ [2]

(b) _____ [3]

(Go on to the next page)

18 James had 234 cubes. The length of each cube is 3 cm.
He used all the cubes to make a cuboid. The base of the cuboid is shown below.



(a) Find the height of the cuboid formed.

(b) If he decides to use the cubes to form another cuboid with a square base of edge 18 cm, how many cubes will **not** be used?

Do not write in this space

Ans: (a) _____ [2]

(b) _____ [3]

END OF PAPER

METHODIST GIRLS' SCHOOL
MID-YEAR EXAMINATION
PRIMARY 6

Paper 1

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

16) 88+12 = 110-10
Ans: 110

17) 5+40-6 = 39

18) 7/3÷1/9 = 21

19) 2.56

20) 60/200x100% = 30%

21) 1600/100x$0.50 = $8

22) 5/8

23) 20 cm

24) 36°

25) 38°

26) 20÷6 = 3 R2
2x1 = 2
3x5 = 15
15+2 = $17

27) 4 : 18+5 = 4 : 23

28) 180°-71° = 109°

29) 30x5 = 150
29x6 = 174
174-150 = $24

30)100-(3zx2+3z) = $(100-9z)

Paper 2

1) 21÷3x$4 = $28
$28/10x5 = $14

2) 3/4-3/20 = 3/5
3/5÷1/10 = 6 friends

3)100/120x90 = $75

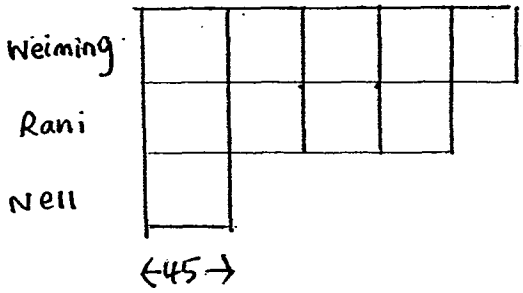
4) √49 = 7
1/4x22/7x7x7 = 38.5 sq cm

5) 60-22 = 38
38÷2 = 19
180-60-19 = 101°

6) 3 egg tarts = 18.50-14.75 = 3.75
9 egg tarts = 3.75x3 = 11.25
1 chicken pie = 14.75-11.25 = $3.50
5 pies = 5x$3.50 = $17.50

7) 2u -- 144
1u -- 144/2 = 72
72x7 = 504

8a) 130 tickets
b) $1920

9) 

45x5 = 225 stickers

10) 7u -- 56
5u -- 5/7x56 = 40
1/2x56x40 = 1120 sq cm

11) 11u -- 363
21u -- 21/11x363 = 693
693x2 = 1386 sq cm

12a) 180°-104° = 76°
76°+76° = 152°
180°-152° = 28°
b) 76°+28° = 104°
180°-48° = 132°
132°-104° = 28°

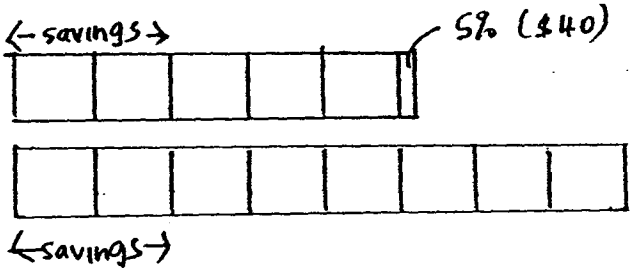
13a) 2L+3F = 186
1L+2F = 109
2L+4F = 218
Difference between foreign stamps, 1F = 218-186 = 32
b) 2F = 32x2 = 64
1L = 109-64 = 45

14a) 5bx5+4b-5+3b+8 = 25b+4b+3b+8-5 = (32b+3) books
b) 4b-5-3b-8 = b-13 = 30-13 = 17 books

15a) Arc length of big semi-circle = 3.14x10 = 31.4
Arc length of small semi-circle = 3.14x5 = 15.7
Perimeter of figure = 31.4+15.7+20 = 67.1 cm
b) Area of figure = 1/2x3.14x10x10+1/2x3.14x5x5 = 196.25 sq cm

16a) 3x21 = 63 sticks
b) 11x11 = 121 triangles
c) 1/2x16x17 = 136 dots

17)



a) 5% -- $40
105% -- 105/5x40 = $840
b) 40% -- $320
2u -- $320
8u -- $320x4 = $1280
212% -- $1280+$840 = $2120
112% -- 112/212x$2120 = $1120
$1280-$1120 = $160

18a) 234 ÷ (3x3) = 26
26x3 = 78 cm

b) 234 ÷ (6x6) = 6.5
6x6x6 = 216
234-216 = 18 cubes will not be used