

**Test:** Primary 6 Math (Term 4) - Red Swastika (Y0)

**Points:** 55 points

**Name:** \_\_\_\_\_

**Score:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

Select multiple choice answers with a cross or tick:

- Only select one answer
- Can select multiple answers

**Question 1 of 59**

Primary 6 Math (Prelim) 1 pt

Which of the following is eight hundred and two thousand and seven in figures?

- \_\_\_\_\_
- A) 80 207
- B) 802 007
- C) 820 007
- D) 8 002 007

**Question 2 of 59**

Primary 6 Math (Prelim) 1 pt

Express 5004g as kg and g

- \_\_\_\_\_
- A) 5kg 4g
- B) 5kg 40g
- C) 50kg 4g
- D) 50kg 40g

**Question 3 of 59**

Primary 6 Math (Prelim) 1 pt

Which of the following is the smallest?

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- A) 8.27
- B) 8.72
- C) 8.207
- D) 8.702

**Question 4 of 59**

Primary 6 Math (Prelim) 1 pt

Which of the following is equivalent to  $\frac{15}{20}$ ?

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- A)  $\frac{9}{16}$
- B)  $\frac{10}{15}$
- C)  $\frac{9}{15}$
- D)  $\frac{9}{12}$

**Question 5 of 59**

Primary 6 Math (Prelim) 1 pt

The radius of a circle is 10cm. Find the circumference of the circle. Take  $\pi=3.14$

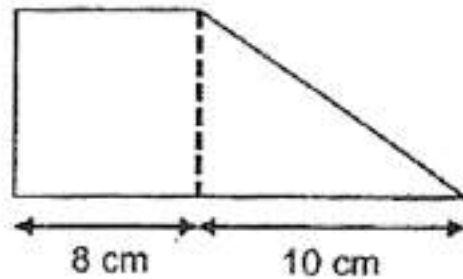
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- A) 31.4cm
- B) 62.8cm
- C) 78.5cm
- D) 314cm

**Question 6 of 59**

Primary 6 Math (Prelim) 1 pt

The figure is made up of a square and a right-angled triangle. Find the area of the figure.



- A) 72cm<sup>2</sup>
- B) 104cm<sup>2</sup>
- C) 114cm<sup>2</sup>
- D) 144cm<sup>2</sup>

**Question 7 of 59**

Primary 6 Math (Prelim) 1 pt

Which letter below is **not** symmetrical?

**T O W N**

- 
- A) T
- B) O
- C) W
- D) N

**Question 8 of 59**

Primary 6 Math (Prelim) 1 pt

What is the value of  $2m + \frac{m-1}{10}$  when  $m = 3$ ?

- 
- A) 5.6
- B) 5.8
- C) 6.2
- D) 6.4

**Question 9 of 59**

Primary 6 Math (Prelim) 1 pt

The average of two numbers is 38. When a third number is added, the average of the the three numbers is 40. Find the third number.

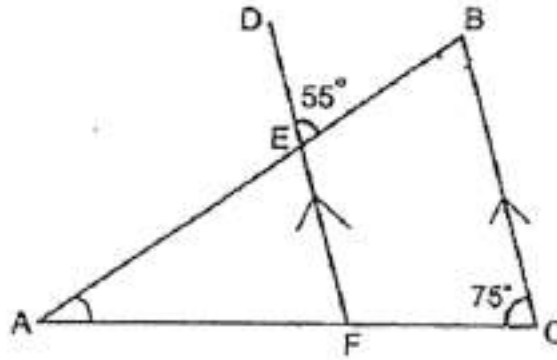
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- A) 39
- B) 42
- C) 44
- D) 82

## Question 10 of 59

Primary 6 Math (Prelim)

1 pt

In the figure below, ABC is a triangle.  $\angle DEB = 55^\circ$  and  $\angle FCB = 75^\circ$ .  
BC is parallel to DF. Find  $\angle EAF$ .

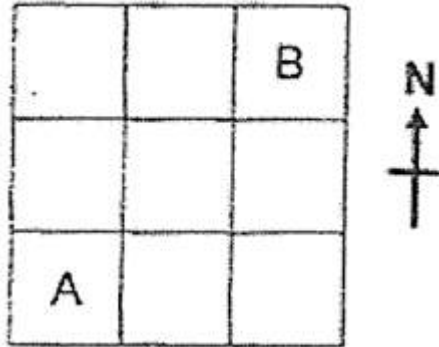
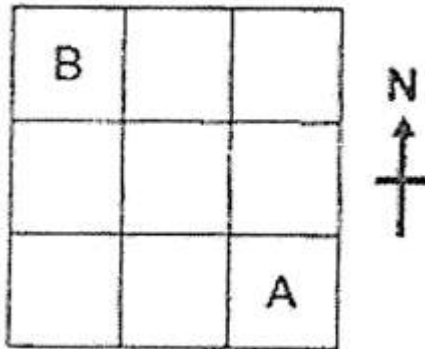
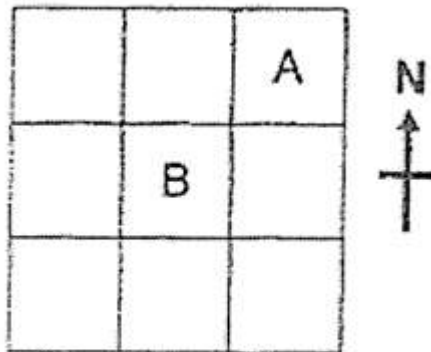


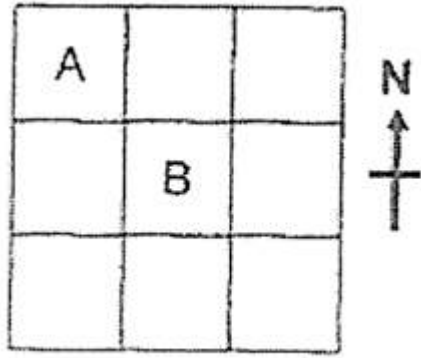
- A) 20
- B) 50
- C) 55
- D) 75

**Question 11 of 59**

Primary 6 Math (Prelim) 1 pt

Points A and B are drawn on square grid below. Which of the following shows A is south-west of B correctly?

 A) B) C) D)



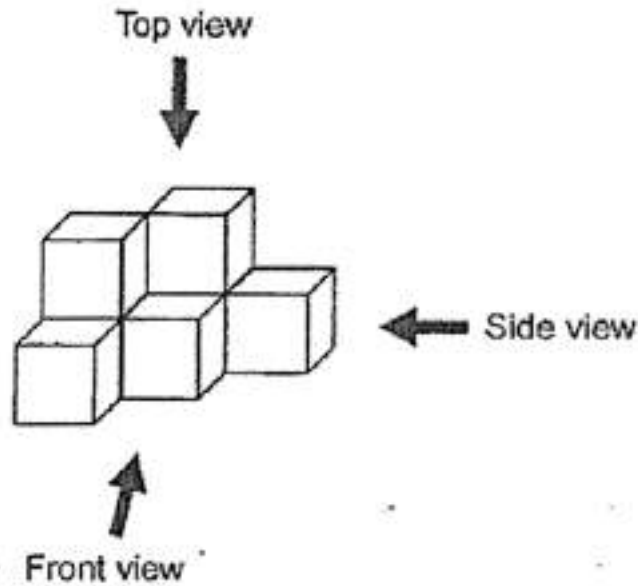
## Question 12 of 59

Primary 6 Math (Prelim)

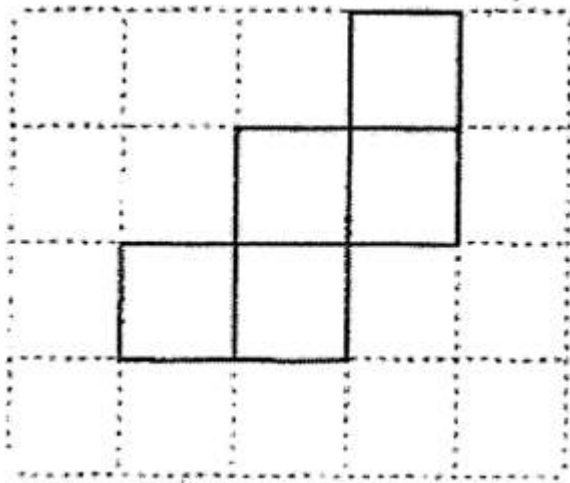
1 pt

The solid below is made of 7 cubes.

Which of the following shows the top view of the solid correctly ?

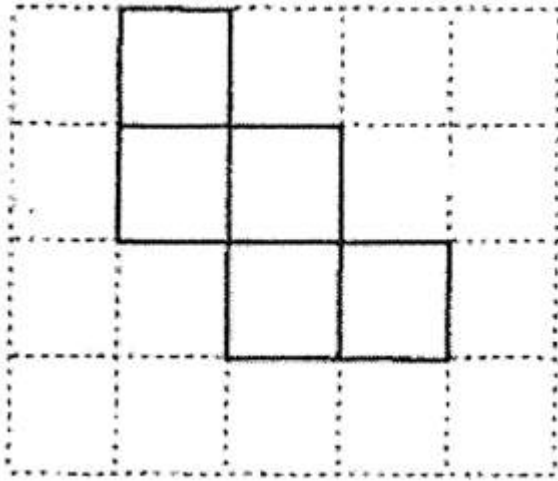


A)

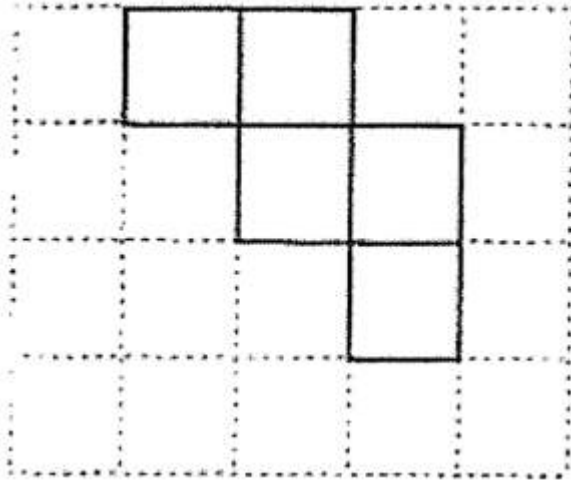


B)

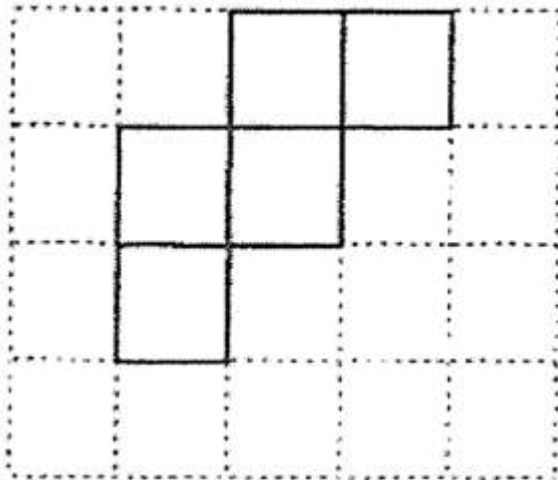




C)



D)



**Question 13 of 59**

Primary 6 Math (Prelim) 1 pt

At a supermarket, 5 apples are sold at \$3.55. What is the price of 30 apples?

- A) \$17.75
- B) \$21.30
- C) \$106.50
- D) \$124.25

**Question 14 of 59**

Primary 6 Math (Prelim) 1 pt

A group of students was asked to vote for their favourite fruit from a list of 4 fruits. The table shows the number of students who voted for each fruit. How many type(s) of fruit(s) was/were voted as a favourite by more than 25% of the students?

Types of fruit	Apple	Banana	Orange	Pear
Number of students	30	18	10	22

- A) 1
- B) 2
- C) 3
- D) 4

**Question 15 of 59**

Primary 6 Math (Prelim) 1 pt

A number is the sum of all the factors of 14. Which of the following can be added to the number to change it to a multiple of 9?

- A) 5
- B) 8
- C) 3
- D) 4

**Question 16 of 59**

Primary 6 Math (Prelim) 1 pt

Find the value of  $58 \times 60$ 

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**Question 17 of 59**

Primary 6 Math (Prelim) 1 pt

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The table below shows the number of dollar notes that Kim has saved.  
Find the total amount of money Kim has saved.

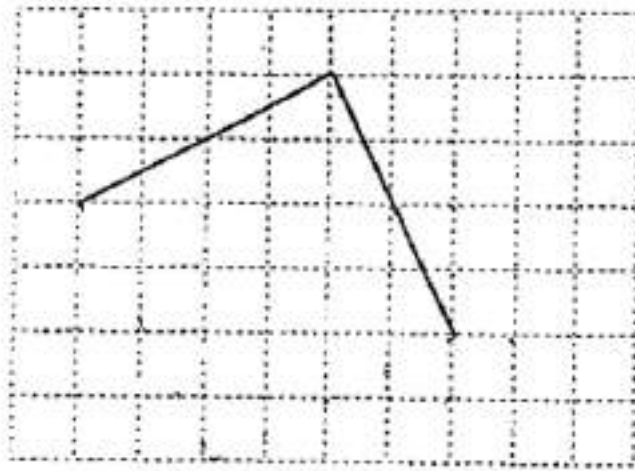
Type of dollar notes	\$2	\$5	\$10
Number of dollar notes	4	5	1

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**Question 18 of 59**

Primary 6 Math (Prelim) 0 pts

On the grid below, draw two straight lines to complete a symmetrical figure.

**Question 19 of 59**

Primary 6 Math (Prelim) 1 pt

A machine takes 5 minutes to make 3 boxes. With two such machines working at the same given rate, how many minutes would be needed to make 90 such boxes?

**Question 20 of 59**

Primary 6 Math (Prelim) 1 pt

Find the value of

a)  $8 \times 4 \div 2 - 1$

**Question 21 of 59**

Primary 6 Math (Prelim) 1 pt

b)  $20 - (3 + 4 \times 2)$ 

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**Question 22 of 59**

Primary 6 Math (Prelim) 1 pt

Find the value of  $\frac{7}{4} + 2\frac{5}{6}$  as a mixed number in its simplest form.

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**Question 23 of 59**

Primary 6 Math (Prelim) 1 pt

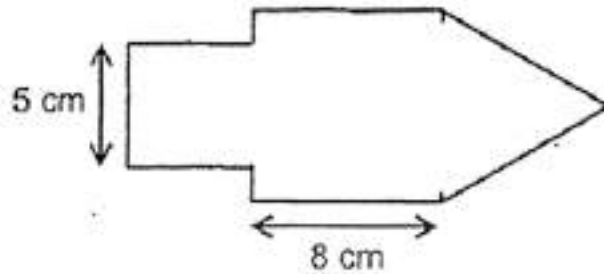
Water from a tap fills an empty tank at 600 ml per minute. At this rate, how much water is in the tank after 25 minutes? Express your answer in litres.

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## Question 24 of 59

Primary 6 Math (Prelim) 1 pt

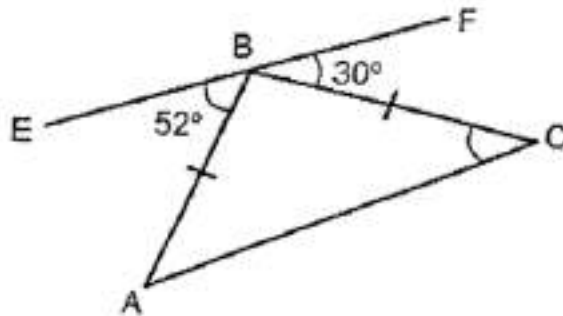
The figure is made up of 2 squares and 1 equilateral triangle. Find the perimeter of the figure.



## Question 25 of 59

Primary 6 Math (Prelim) 1 pt

In the figure below,  $ABC$  is an isosceles triangle,  $EBF$  is a straight line,  $\angle ABE = 52^\circ$  and  $\angle CBF = 30^\circ$ . Find  $\angle BCA$ .



**Question 26 of 59**

Primary 6 Math (Prelim) 1 pt

The average of 2 numbers is 39. The average of another 3 numbers is 44. Find the total of these 5 numbers?

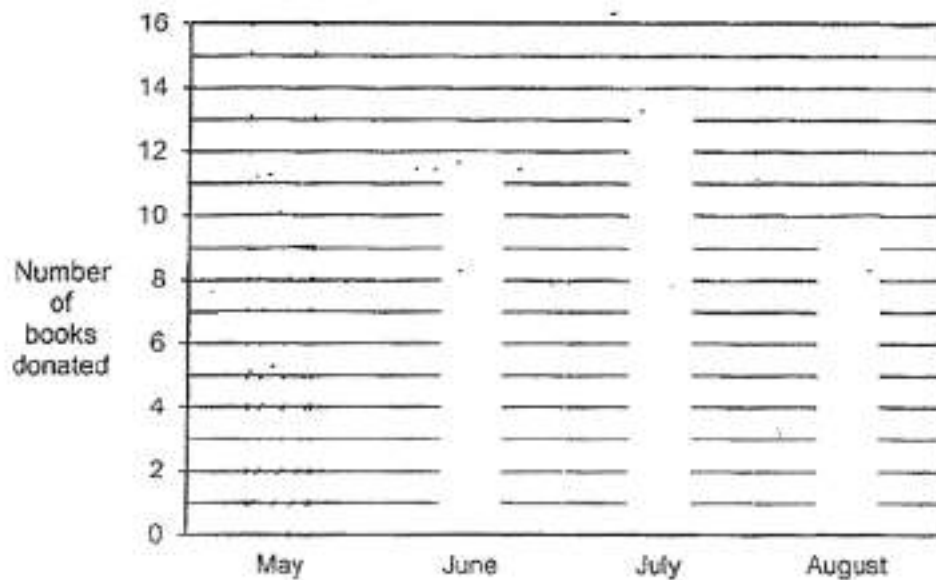
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**Question 27 of 59**

Primary 6 Math (Prelim) 0 pts

Use the information below to answer Questions 27 and 28.

The bar graph below shows the number of books donated by a class from May to August. The number of books donated in May was  $\frac{1}{5}$  of the total number of books donated during the 4 months.



Draw the bar for May in the graph.

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**Question 28 of 59**

Primary 6 Math (Prelim) 1 pt

What fraction of the total number of books was donated in June?

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**Question 29 of 59**

Primary 6 Math (Prelim) 1 pt

In a sale, each cup is sold at  $\$3a$  and each plate is sold at  $\$(a+4)$ . Find the total price of 3 cups and 2 plates in terms of  $a$ . Express your answer in the simplest form.

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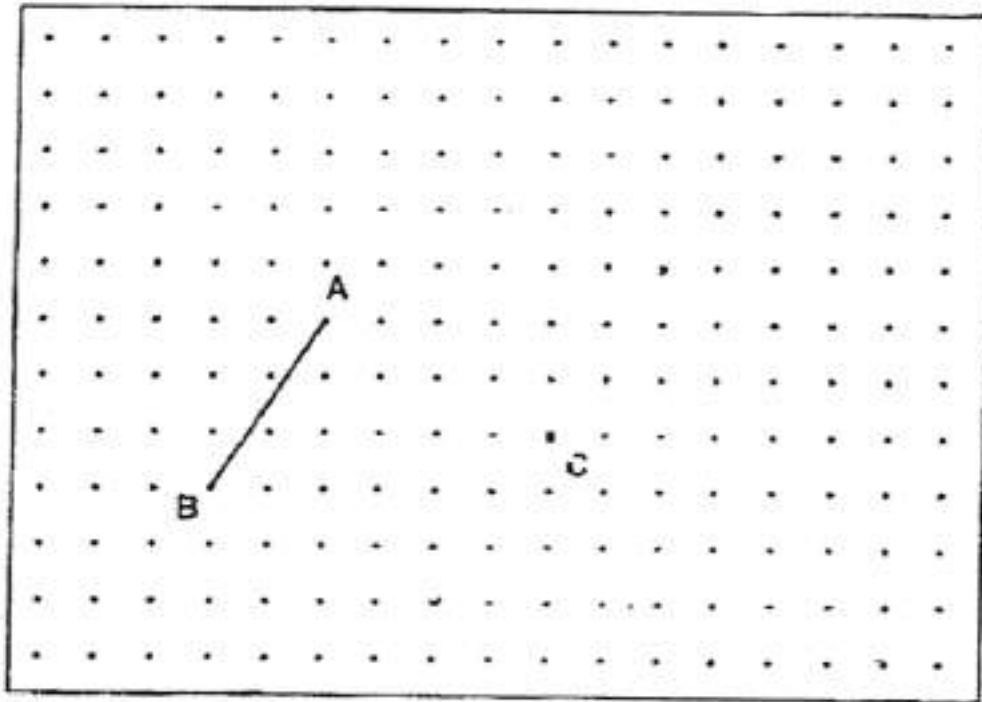


## Question 30 of 59

Primary 6 Math (Prelim) 0 pts

Using the grid and the given line AB, draw another straight line with the following characteristics:

- parallel to AB
- twice the length of AB
- passes through C which is marked by X on the grid as shown



## Question 31 of 59

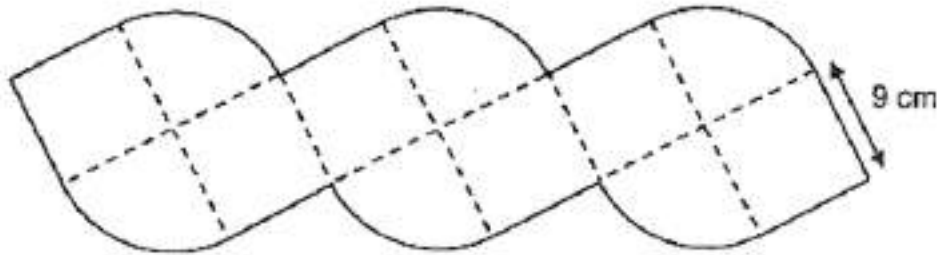
Primary 6 Math (Prelim) 1 pt

The total of 2 numbers is 43.2 and their difference is 12.8. Find the smaller number

## Question 32 of 59

Primary 6 Math (Prelim) 1 pt

The figure is made up similar quadrants and squares. Find the perimeter of the figure correct to 1 decimal place. Take  $\pi = 3.14$ .



## Question 33 of 59

Primary 6 Math (Prelim) 1 pt

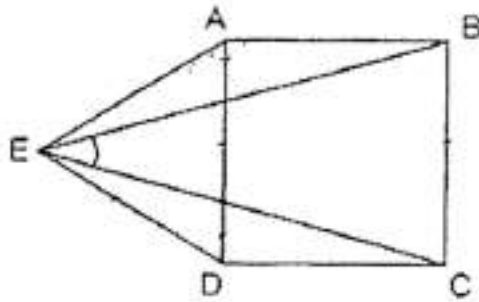
Study the algebraic expressions that follow a pattern below.  
Find the value of  $w$  if Number 6 is 65.

Number 1	Number 2	Number 3	....	Number 6
$13w + 12$	$11w + 10$	$9w + 8$	....	?

**Question 34 of 59**

Primary 6 Math (Prelim) 1 pt

In the figure below, ABCD is a square and ADE is an equilateral triangle.  
Find  $\angle BEC$ .

**Question 35 of 59**

Primary 6 Math (Prelim) 1 pt

Devi had to fill as many jugs as possible with 10 ℓ of water. The capacity of each jug is  $\frac{9}{16}$  ℓ.

- (a) What was the most number of jugs that could be completely filled with water?

**Question 36 of 59**

Primary 6 Math (Prelim) 1 pt

- b) how much of the water was left over? Give your answer in litres

**Question 37 of 59**

Primary 6 Math (Prelim) 1 pt

At a shop, Alice paid \$15.60 for a chocolate cake and 5 curry puffs. Ben paid \$26.45 for a chocolate cake and 12 curry puffs. Find the cost of 1 chocolate cake.

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**Question 38 of 59**

Primary 6 Math (Prelim) 1 pt

Use all the digits 6,2,3 to form the number

a) \_\_\_\_ minutes are smaller than 4 hours

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**Question 39 of 59**

Primary 6 Math (Prelim) 1 pt

b) \_\_\_\_ minutes are closest to 5 hours

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**Question 40 of 59**

Primary 6 Math (Prelim) 1 pt

A baker had a total of 425 tarts and cupcakes. After selling an equal number of both types, he had  $\frac{1}{3}$  of the tarts and  $\frac{1}{4}$  of the cupcakes left. What was the total number of tarts and cupcakes left?

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## Question 41 of 59

Primary 6 Math (Prelim) 1 pt

Tim had some books for sale. He sold some books on Saturday. On Sunday, he sold  $\frac{1}{4}$  of the remainder. After the sale, the ratio of number of books sold to the number of books left was 8 : 5. What was ratio of the number of books sold on Saturday to the number of books sold on Sunday?

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## Question 42 of 59

Primary 6 Math (Prelim) 1 pt

**Membership Promotion Coupon**



*Buy first laptop  
at 20% discount*



*Buy second similar laptop  
at 40% discount*

*For Non-members, 15% discount for each laptop.*

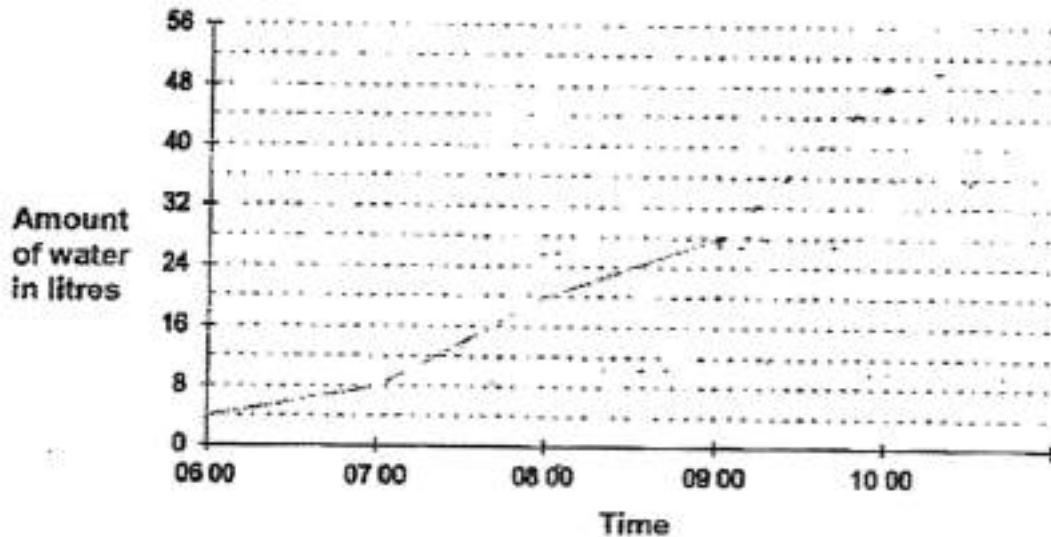
Using the membership promotion coupon, Sue paid \$2940 for 2 similar laptops. How much would she have paid for 1 such laptop if she was not a member?

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## Question 43 of 59

Primary 6 Math (Prelim) 0 pts

- 1 A tank was partially filled with water at first. A tap was turned on from 06 00, and the tank was completely filled to 48 litres at 10 00. A line graph, showing the volume of water in the tank at regular intervals of time was drawn up as shown below. However, the line graph only shows the readings from 06 00 to 09 00.



- (a) Complete the line graph from the 09 00 to 10 00 with a straight line. [1]

## Question 44 of 59

Primary 6 Math (Prelim) 1 pt

What fraction of the tank was filled with water at first? Express your answer as a fraction in its simplest form.

**Question 45 of 59**

Primary 6 Math (Prelim) 1 pt

b) What was the percentage increase in the amount of water in the tank from 08 00 to 09 00?

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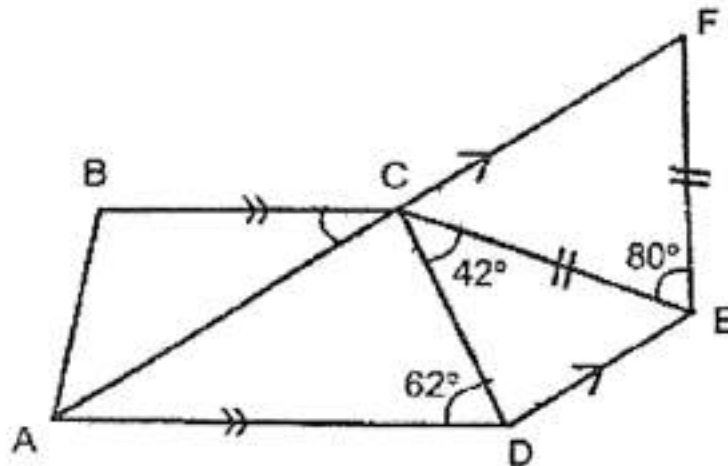
**Question 46 of 59**

Primary 6 Math (Prelim) 1 pt

In the figure below, ABCD and AFED are trapeziums,  $CE = EF$ ,  $\angle ADC = 62^\circ$ ,  $\angle DCE = 42^\circ$  and  $\angle CEF = 80^\circ$ .

(a) Find  $\angle ACD$ .

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**Question 47 of 59**

Primary 6 Math (Prelim) 1 pt

b) Find  $\angle ACB$

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**Question 48 of 59**

Primary 6 Math (Prelim) 1 pt

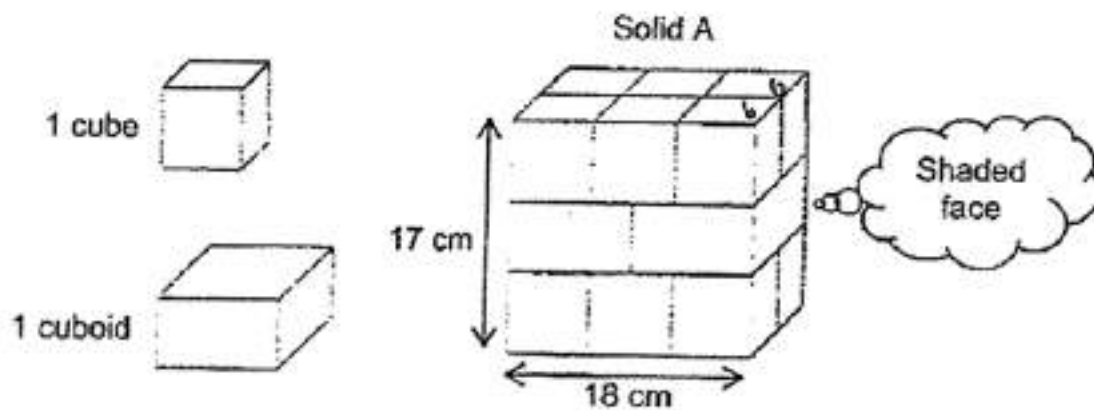
Peter claims the CD is perpendicular to DE. Do you agree with Peter?

- A) Yes
- B) No

**Question 49 of 59**

Primary 6 Math (Prelim) 1 pt

Solid A is glued together using 2 similar cuboids and 12 identical cubes as shown.



- (a) Find the total area of the shaded face as shown.

**Question 50 of 59**

Primary 6 Math (Prelim) 1 pt

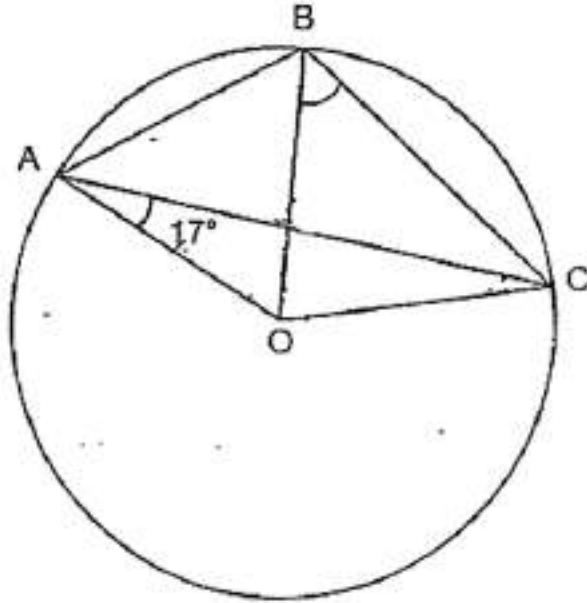
- b) Find the volume of 1 cuboid.



**Question 51 of 59**

Primary 6 Math (Prelim) 1 pt

In the figure below,  $O$  is the centre of the circle.  $OAC$ ,  $OAB$  and  $OBC$  are triangles,  $AB = AO$  and  $\angle OAC = 17^\circ$ .



- (a) Name an equilateral triangle in the given figure.
- 

**Question 52 of 59**

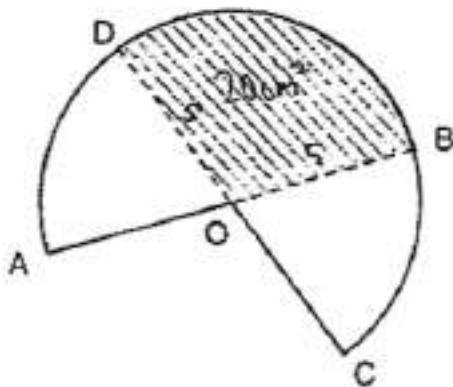
Primary 6 Math (Prelim) 1 pt

- b) Find  $\angle OBC$
-

## Question 53 of 59

Primary 6 Math (Prelim) 1 pt

The figure is formed by 2 identical semicircles overlapping each other. The radius of each semicircle is 5 cm. O is the centre of both semicircles. AOB and COD are the diameters. The area of the shaded part OBD is  $20 \text{ cm}^2$  and the perimeter of the shaded part OBD is 18 cm.



- (a) Using the calculator value of  $\pi$ , find the area of the figure. Correct your answer to 2 decimal places.

## Question 54 of 59

Primary 6 Math (Prelim) 1 pt

- (b) Using  $\pi = \frac{22}{7}$ , find the perimeter of the figure. Give your answer as a mixed number in the simplest form.

**Question 55 of 59**

Primary 6 Math (Prelim) 1 pt

At first, Ben had some red, blue and green marbles. During a game, he removed 54 red marbles, gave away 40% of the blue marbles and increased the green marbles by 25%. After the game, the ratio of the number of red marbles to the number of blue marbles to the number of green marbles was 3 : 1 : 5. The total number of marbles he had before and after the game was the same.

(a) What fraction of the marbles were red at first?

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**Question 56 of 59**

Primary 6 Math (Prelim) 1 pt

b) How many green marbles had he increased during the game?

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## Question 57 of 59

Primary 6 Math (Prelim) 1 pt

Farid used circles to form figures that follow a pattern. The first 4 figures are shown below.



Figure 1



Figure 2



Figure 3



Figure 4

- (a) The table below shows the number of circles used for each figure. Complete the table for Figure 5 and Figure 6.

Figure Number	Number of circles used
1	13
2	18
3	21
4	26
5	
6	

[1]

## Question 58 of 59

Primary 6 Math (Prelim) 1 pt

- b) What is the difference in the number of circles Farid would use for Figure 10 and Figure 12?

## Question 59 of 59

Primary 6 Math (Prelim) 1 pt

- c) How many circles would he use for Figure 41?