

**Test:** Primary 6 Math (Term 2) - Catholic High

**Points:** 96 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 54

Primary 6 Math (Term 2) 1 pt

**Each question carries 1 mark. For each question, four options are given. Make your choice and choose the correct answer. (20 marks)**

Which digit in 9.876 is in the hundredths place?

- 
- A) 6
- B) 7
- C) 8
- D) 9

## Question 2 of 54

Primary 6 Math (Term 2) 2 pts

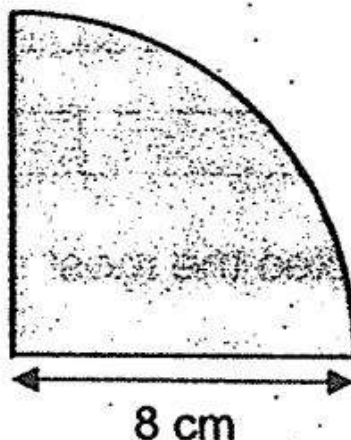
A bowl contains red, green and black beans.  $\frac{1}{9}$  of the beans are red.  $\frac{1}{4}$  of the remaining beans are green and the rest are black beans. What fraction of the beans in the bowl are black?

- A)  $\frac{5}{36}$
- B)  $\frac{23}{36}$
- C)  $\frac{2}{9}$
- D)  $\frac{2}{3}$

## Question 3 of 54

Primary 6 Math (Term 2) 2 pts

The shaded figure is a quarter circle of radius 8 cm.  
What is the perimeter of the shaded figure?  
Leave the answer in terms of  $\pi$ .



- A)  $(2\pi + 16)$  cm
- B)  $(4\pi + 16)$  cm
- C)  $(8\pi + 16)$  cm
- D)  $(16\pi + 16)$  cm

## Question 4 of 54

Primary 6 Math (Term 2) 1 pt

Which of the following numbers is the smallest?

- A) 0.015
- B) 0.051
- C) 0.501
- D) 0.105

**Question 5 of 54**

Primary 6 Math (Term 2) 1 pt

$$60 + \frac{6}{10} + \frac{6}{1000} = \underline{\hspace{4cm}}$$

- A) 66.6
- B) 60.66
- C) 60.066
- D) 60.606

**Question 6 of 54**

Primary 6 Math (Term 2) 1 pt

Find the value of  $80 - 24 \div 4 + 2$ 

- A) 16
- B) 28
- C) 72
- D) 76

**Question 7 of 54**

Primary 6 Math (Term 2) 1 pt

**Which of the following is likely the mass of a classroom chair?**

- A) 0.03 kg
- B) 0.3 kg
- C) 3 kg
- D) 30 kg

## Question 8 of 54

Primary 6 Math (Term 2) 1 pt

234 092 people signed up for a charity run. Round the number to the nearest thousand.

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- A) 234 000
- B) 234 100
- C) 235 000
- D) 235 100

## Question 9 of 54

Primary 6 Math (Term 2) 1 pt

Which one of the following is the same as  $5 \div \frac{2}{3}$ ?

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- A)  $\frac{1}{5} \times \frac{2}{3}$
- B)  $\frac{1}{5} \times \frac{3}{2}$
- C)  $\frac{5}{1} \times \frac{2}{3}$
- D)  $\frac{5}{1} \times \frac{3}{2}$

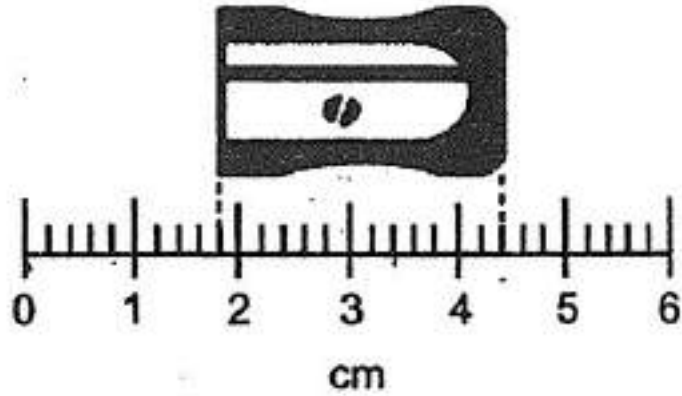
## Question 10 of 54

Primary 6 Math (Term 2)

1 pt

A sharpener is placed on a scale as shown.

What is the length of the sharpener as shown on the scale?

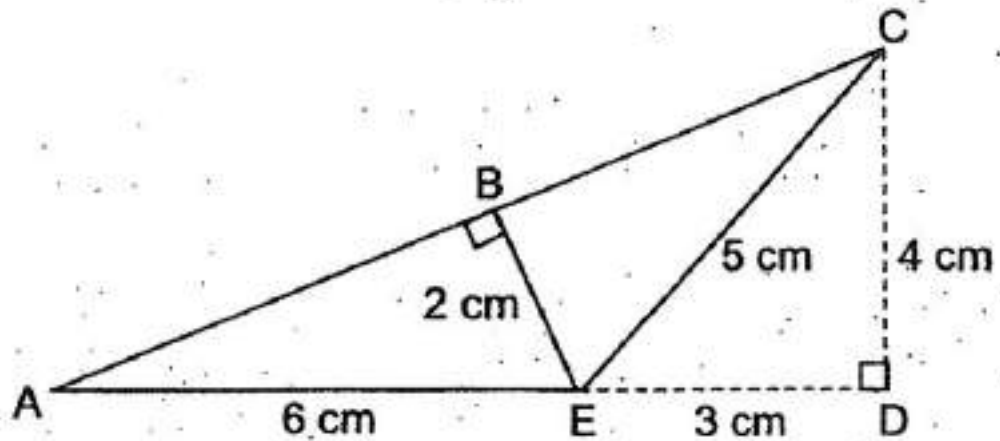


- A) 2.3 cm
- B) 2.6 cm
- C) 4.2 cm
- D) 4.4 cm

## Question 11 of 54

Primary 6 Math (Term 2) 1 pt

What is the area of triangle ACE as shown in the figure?

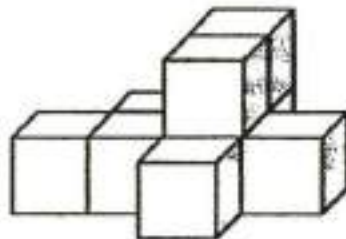


- A) 12 cm<sup>2</sup>  
 B) 15 cm<sup>2</sup>  
 C) 18 cm<sup>2</sup>  
 D) 36 cm<sup>2</sup>

## Question 12 of 54

Primary 6 Math (Term 2) 1 pt

The solid shown is formed using unit cubes. How many unit cubes are used to form the solid?

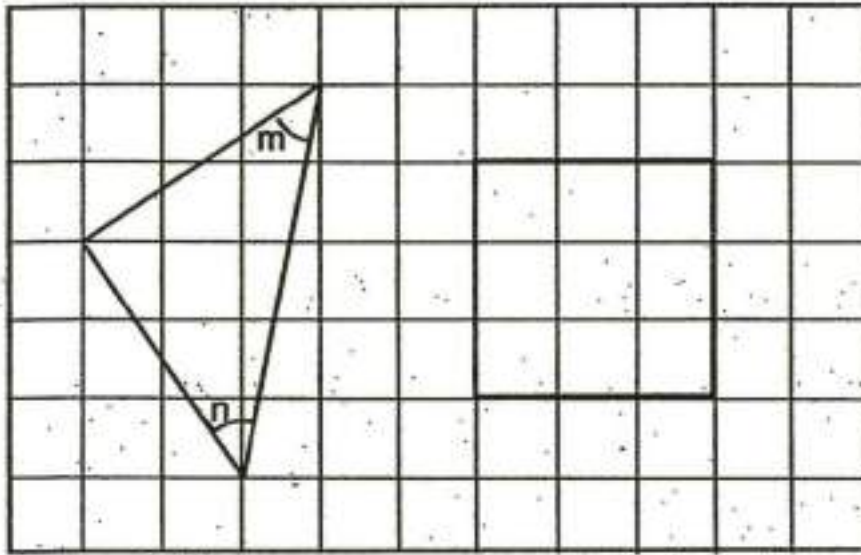


- A) 6  
 B) 7  
 C) 8  
 D) 9

## Question 13 of 54

Primary 6 Math (Term 2) 2 pts

A triangle and a square are shown in the square grid below.



Which of the following statement(s) is/are true?

Statement A :  $\angle m$  is equal to  $\angle n$ .

Statement B : The square has both parallel and perpendicular sides.

Statement C : The triangle has a greater area than the square.

- A) A and B only
- B) B and C only
- C) A and C only
- D) A, B and C



## Question 14 of 54

Primary 6 Math (Term 2) 2 pts

Red and white erasers are both placed in box A and box B. Box A has as many erasers as box B. The ratio of the number of red erasers to the number of white erasers in box A is 3 : 2 and in box B, it is 7 : 8. What is the ratio of the total number of red erasers to the total number of white erasers?

- A) 1:01
- B) 6:09
- C) 8:07
- D) 21:16

## Question 15 of 54

Primary 6 Math (Term 2) 2 pts

Four teams of hair stylists provide haircut services to raise funds for charity. For each haircut, customers with short hair are charged \$20 and customers with long hair are charged \$30. The table shows the number of haircuts completed by the various teams.

| Team | Number of haircuts                  |                                    |
|------|-------------------------------------|------------------------------------|
|      | Number of customers with short hair | Number of customers with long hair |
| A    | 6                                   | 8                                  |
| B    | 8                                   | 7                                  |
| C    | 11                                  | 6                                  |
| D    | 12                                  | 5                                  |

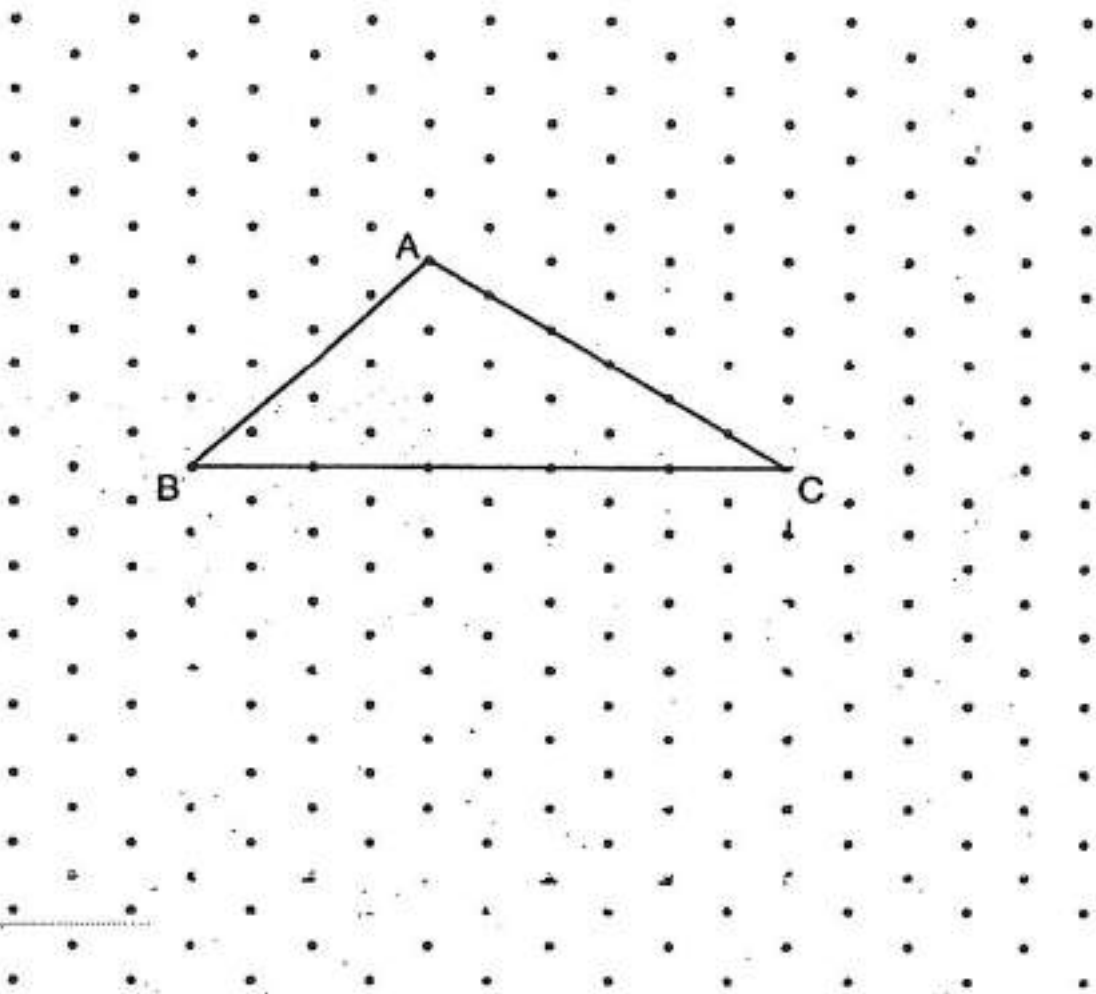
Which of the four teams collected the most money for charity?

- A) A
- B) B
- C) C
- D) D

## Question 16 of 54

Primary 6 Math (Term 2) 0 pts

The figure below shows a triangle ABC drawn on a grid.



BCDE is a rectangle with an area twice that of the triangle ABC.  
Draw BCDE on the grid above.

Draw line CF on the grid such that it is perpendicular to line AC.

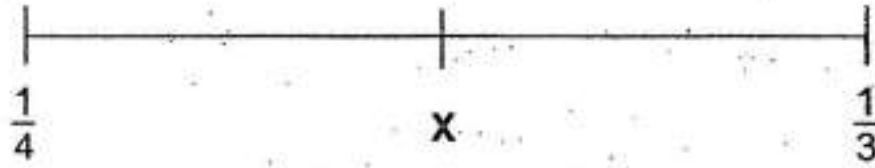
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

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## Question 17 of 54

Primary 6 Math (Term 2) 2 pts

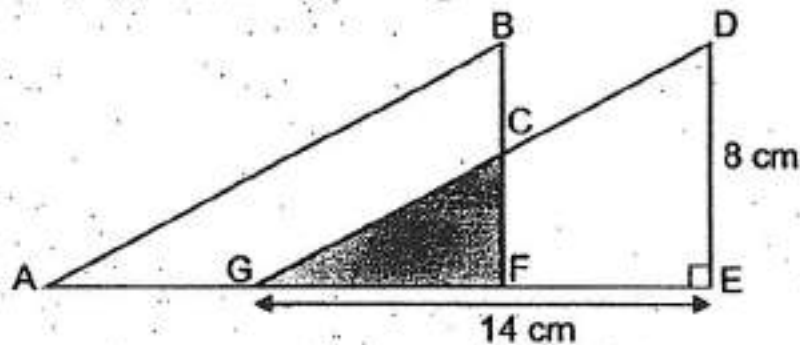
Look at the number line below. The number line is marked at equal intervals. What is the value of X? Leave the answer as a fraction.



## Question 18 of 54

Primary 6 Math (Term 2) 2 pts

The figure below is formed by two identical triangles, ABF and GDE, overlapping each other. The figure has an area of  $96 \text{ cm}^2$ . AGFE is a straight line. Find the area of the shaded triangle GCF.



Ans: \_\_\_\_\_  $\text{cm}^2$

## Question 19 of 54

Primary 6 Math (Term 2) 2 pts

Mrs Lim uses the recipe below to make rose syrup milk drink.

Rose syrup milk drink recipe  
(makes 5 cups)

300 ml rose syrup

200 ml evaporated milk

1000 ml water

She has  $1\frac{1}{2}$  l of rose syrup, 900 ml of evaporated milk and 3 l of water.  
What is the greatest number of cups of rose syrup milk drink she can make?

## Question 20 of 54

Primary 6 Math (Term 2) 2 pts

A bakery had a number of buns for sale. After selling 150 in the morning and  $\frac{5}{7}$  of the remainder in the afternoon, he was left with 120 buns. How many buns were sold altogether?

## Question 21 of 54

Primary 6 Math (Term 2) 1 pt

1 million is \_\_\_\_\_ more than 600 999.

**Question 22 of 54**

Primary 6 Math (Term 2) 1 pt

For each question, show your workings clearly and write your answers in the units stated for questions that require units. (45 marks)

Jack had a piece of rope  $\frac{4}{5}$  m long. She cut it into  $\frac{3}{10}$  m pieces.

How many  $\frac{3}{10}$  m pieces of rope were there at most?

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**Question 23 of 54**

Primary 6 Math (Term 2) 2 pts

Jack had a piece of rope  $\frac{4}{5}$  m long. She cut it into  $\frac{3}{10}$  m pieces.


What was the length of the piece of rope left over?

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## Question 24 of 54

Primary 6 Math (Term 2) 1 pt

The table below shows the number of books read by each pupil in a class of 30 pupils. One of the numbers in the table is covered by an ink blot.

|                                    |    |     |   |
|------------------------------------|----|-----|---|
| Number of books read by each pupil | 0  | $y$ |  |
| Number of pupils                   | 10 | 14  | 6   |

The average number of books read by the pupils in the class is  $y$ .


Find the total number of books read by the class.

Leave your answer in terms of  $y$ .

## Question 25 of 54

Primary 6 Math (Term 2) 2 pts

The table below shows the number of books read by each pupil in a class of 30 pupils. One of the numbers in the table is covered by an ink blot.

|                                    |    |     |   |
|------------------------------------|----|-----|---|
| Number of books read by each pupil | 0  | $y$ |  |
| Number of pupils                   | 10 | 14  | 6   |

The average number of books read by the pupils in the class is  $y$ .

What is the number covered by the ink blot?

Leave your answer in terms of  $y$ .

**Question 26 of 54**

Primary 6 Math (Term 2) 1 pt

Write down all the common factors of 12 and 16.

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**Question 27 of 54**

Primary 6 Math (Term 2) 3 pts

**Mr Sim needs 220 pieces of string, each of length 30 cm, to tie parcels. String is sold in rolls of 20 m each. What is the least number of rolls of string that Mr Sim needs to buy?**

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**Question 28 of 54**

Primary 6 Math (Term 2) 3 pts

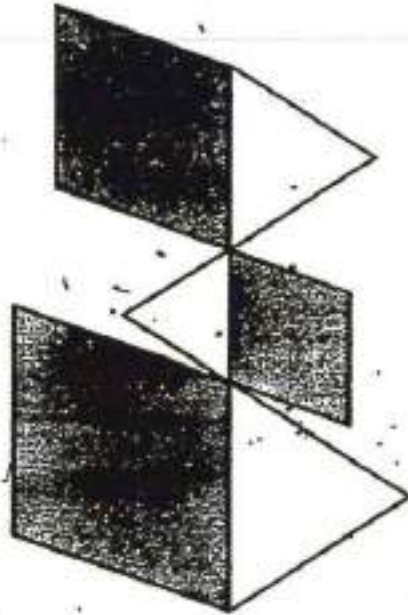
**Mrs Tan took 25 minutes while Mrs Lee took 40 minutes to make the same number of dumplings. Mrs Tan made 12 more dumplings in one minute than Mrs Lee. How many dumplings did Mrs Lee make in one minute?**

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## Question 29 of 54

Primary 6 Math (Term 2) 3 pts

The figure below is formed using 3 rhombuses and 3 equilateral triangles. The perimeter of the shaded rhombuses is 60 cm. What is the perimeter of the figure?



## Question 30 of 54

Primary 6 Math (Term 2) 1 pt

The first 16 numbers of a number pattern are given below.

2 1 3 0 5 2 1 3 0 5 2 1 3 0 5 2  
<sub>1<sup>st</sup></sub> 16<sup>th</sup>

What is the 76<sup>th</sup> number?

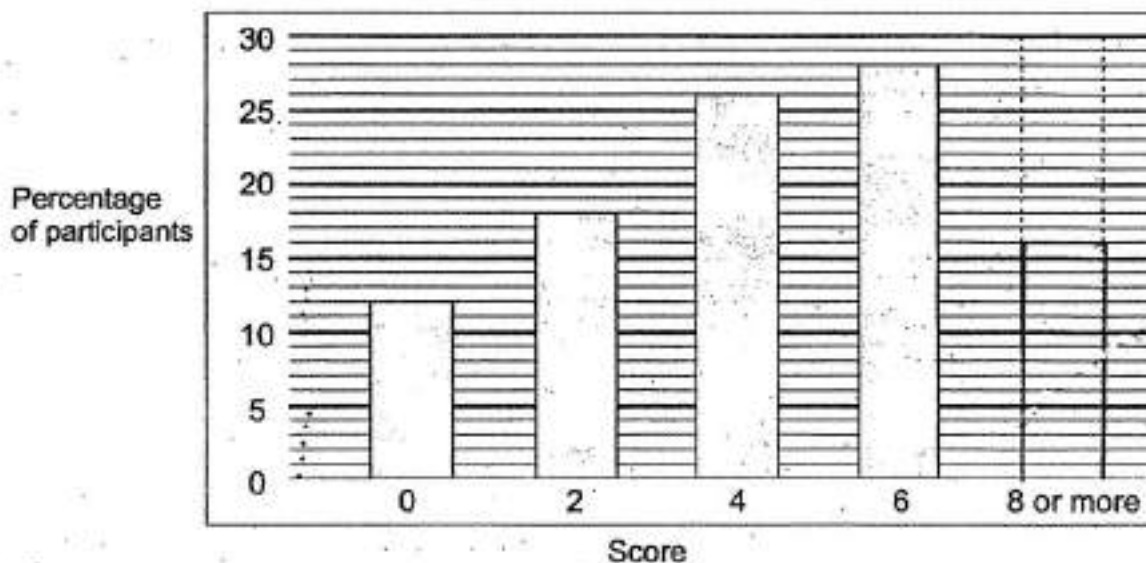


## Question 31 of 54

Primary 6 Math (Term 2) 2 pts

Participants of a competition must obtain a certain score in the first round to qualify for the second round. The table shows the number of participants for each score in the first round. The lowest score is 0. There were 150 participants in the first round.

| Score     | Number of Participants |
|-----------|------------------------|
| 0         | 18                     |
| 2         | 27                     |
| 4         | 39                     |
| 6         | 42                     |
| 8 or more | 24                     |



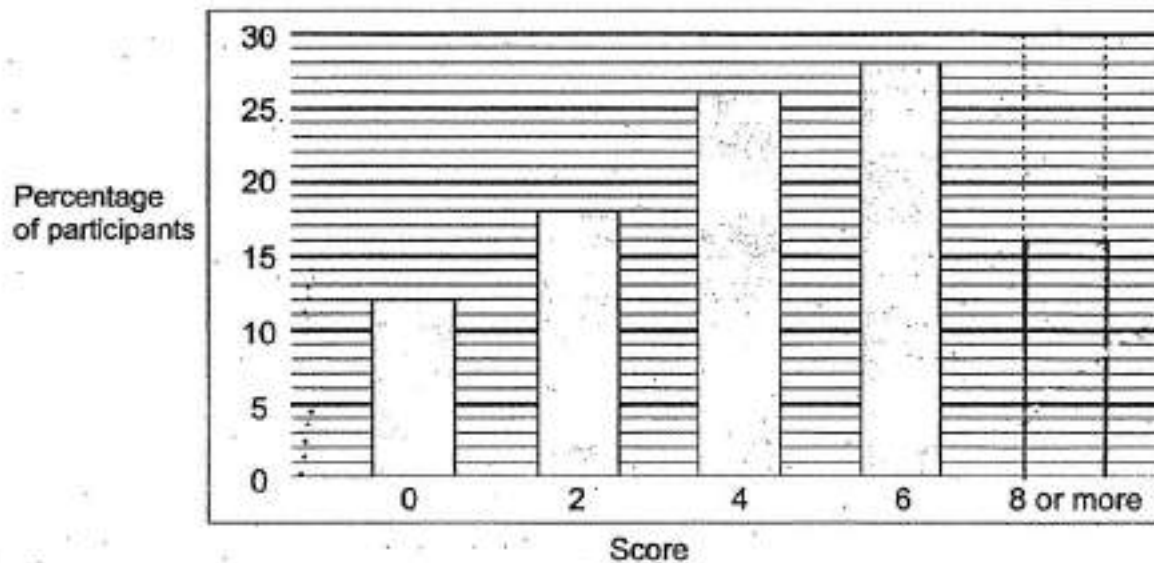
30% of the participants did not qualify for the second round. From the table, what was the lowest score of a participant who qualified for the second round?

## Question 32 of 54

Primary 6 Math (Term 2) 0 pts

Participants of a competition must obtain a certain score in the first round to qualify for the second round. The table shows the number of participants for each score in the first round. The lowest score is 0. There were 150 participants in the first round.

| Score     | Number of Participants |
|-----------|------------------------|
| 0         | 18                     |
| 2         | 27                     |
| 4         | 39                     |
| 6         | 42                     |
| 8 or more | 24                     |



What percentage of the participants obtained a score of '8 or more'? Draw the bar for the percentage of participants who obtained a score of '8 or more' in the graph above.

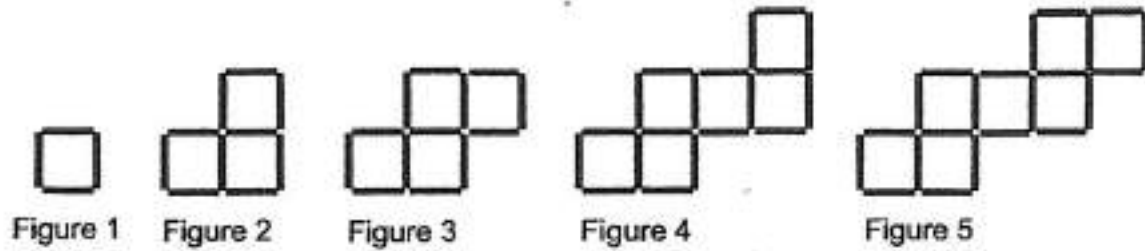
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## Question 33 of 54

Primary 6 Math (Term 2) 1 pt

Sticks of the same length are used to form figures that follow a pattern. The first five figures are shown below.



The table below shows the number of sticks used for each figure and the number of squares formed in each figure.

| Figure Number | Number of sticks used | Number of squares |
|---------------|-----------------------|-------------------|
| 1             | 4                     | 1                 |
| 2             | 10                    | 3                 |
| 3             | 13                    | 4                 |
| 4             | 19                    | 6                 |
| 5             | 22                    | 7                 |
| 6             |                       |                   |

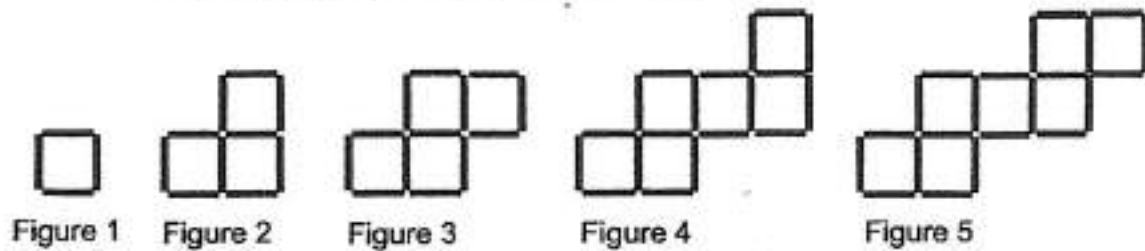
[1]

Complete the table for Figure 6.

## Question 34 of 54

Primary 6 Math (Term 2) 2 pts

Sticks of the same length are used to form figures that follow a pattern. The first five figures are shown below.



The table below shows the number of sticks used for each figure and the number of squares formed in each figure.

| Figure Number | Number of sticks used | Number of squares |
|---------------|-----------------------|-------------------|
| 1             | 4                     | 1                 |
| 2             | 10                    | 3                 |
| 3             | 13                    | 4                 |
| 4             | 19                    | 6                 |
| 5             | 22                    | 7                 |
| 6             |                       |                   |

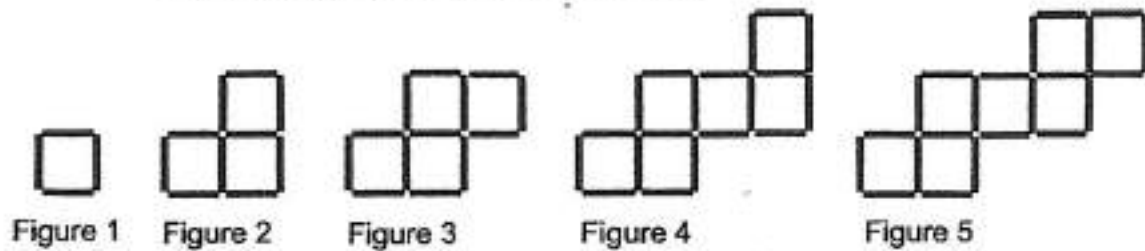
[1]

How many squares are there in Figure 50?

## Question 35 of 54

Primary 6 Math (Term 2) 2 pts

Sticks of the same length are used to form figures that follow a pattern. The first five figures are shown below.



The table below shows the number of sticks used for each figure and the number of squares formed in each figure.

| Figure Number | Number of sticks used | Number of squares |
|---------------|-----------------------|-------------------|
| 1             | 4                     | 1                 |
| 2             | 10                    | 3                 |
| 3             | 13                    | 4                 |
| 4             | 19                    | 6                 |
| 5             | 22                    | 7                 |
| 6             |                       |                   |

[1]

How many sticks are used in Figure 101?

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## Question 36 of 54

Primary 6 Math (Term 2) 1 pt

Express 0.7% as a fraction.

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## Question 37 of 54

Primary 6 Math (Term 2) 2 pts

Gareth completed a race in 190 seconds. He was 25 seconds faster than Raja. How long did Raja take to complete the race?  
Leave your answer in minutes and seconds.

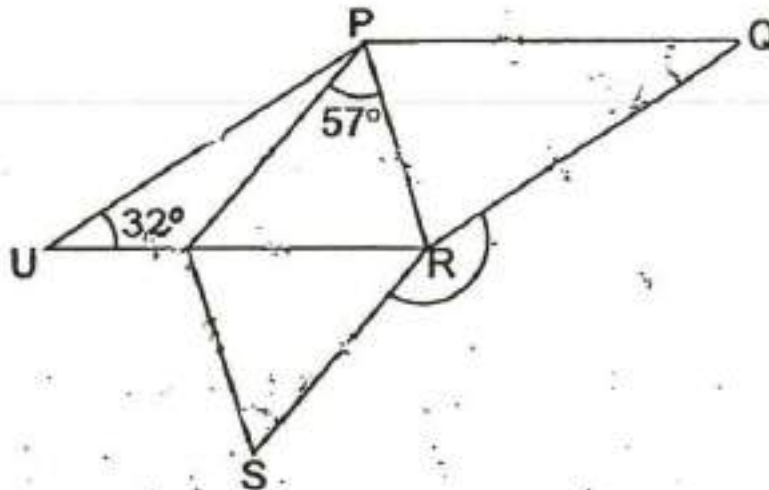
Ans: \_\_\_\_ min \_\_\_\_ s

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## Question 38 of 54

Primary 6 Math (Term 2) 4 pts

In the figure, PQRU is a rhombus and PRST is a parallelogram.  
 $\angle TPR = 57^\circ$  and  $\angle RUP = 32^\circ$ . Find  $\angle SRQ$ .



## Question 39 of 54

Primary 6 Math (Term 2) 2 pts

The fifth multiple of a 1-digit number is 24 more than its second multiple.  
What is the seventh multiple of the 1-digit number?

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**Question 40 of 54**

Primary 6 Math (Term 2) 1 pt

**Cindy bought a musical box and a watch at a discount. 20% discount was given to the musical box and the total discount given for both items was \$140. She paid a total of \$600 and paid \$120 more for the watch than the musical box.**

How much did she pay for the musical box?

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**Question 41 of 54**

Primary 6 Math (Term 2) 3 pts

**Cindy bought a musical box and a watch at a discount. 20% discount was given to the musical box and the total discount given for both items was \$140. She paid a total of \$600 and paid \$120 more for the watch than the musical box.**

What was the percentage discount given for the watch?  
Round the answer to 1 decimal place.

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**Question 42 of 54**

Primary 6 Math (Term 2) 2 pts

**Each question carries 2 marks. Show your workings clearly and for each question which require units, give your answers in the units stated. All diagrams are not drawn to scale. (10 marks)**

For every \$5 saved by Ahmad, his father gave him \$1. How much was saved by Ahmad if he had a total of \$648 in his savings?

Ans: \$ \_\_\_\_\_

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## Question 43 of 54

Primary 6 Math (Term 2) 4 pts

Alan was given a total of 208 game cards. He wanted more cards so he bought the same number of cards each day for the next 10 days. At the end of the fifth day, he had <sup>bought</sup> ~~bought~~  $\frac{5}{23}$  of the total number of cards. <sup>buy</sup> How many game cards did he ~~buy~~ <sup>he was given and had</sup> ~~buy~~ in the 5 days? <sup>bought in 10 days</sup>

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## Question 44 of 54

Primary 6 Math (Term 2) 4 pts

The number of blue pens that Mrs Li had was  $\frac{6}{5}$  of the number of red pens. Her son took 52 red pens and 24 blue pens from her. After that, the number of red pens became  $\frac{1}{6}$  of the number of blue pens. How many blue pens did Mrs Li have in the end?

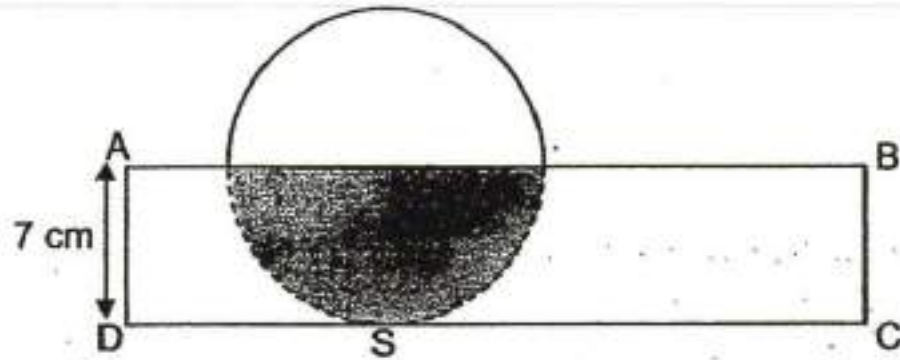
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## Question 45 of 54

Primary 6 Math (Term 2) 2 pts

In the figure below, rectangle ABCD overlaps a circle with AB passing through the centre of the circle and DC touching a point, S, on the circumference of the circle. The area of the shaded part is  $\frac{1}{3}$  of the area of the rectangle.



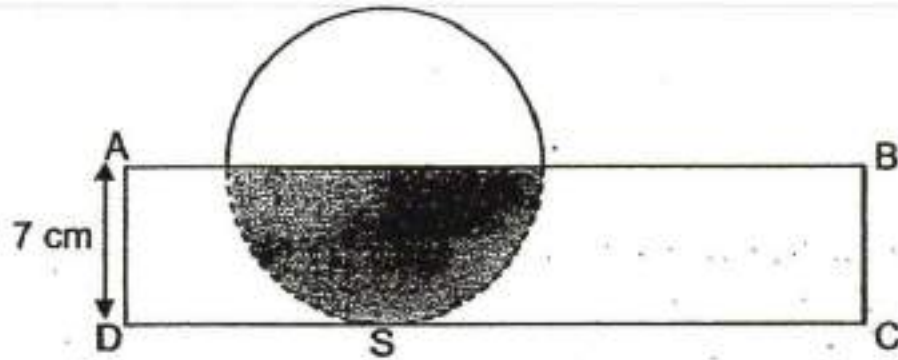
Take  $\pi = \frac{22}{7}$ .

Find the length of CD.

## Question 46 of 54

Primary 6 Math (Term 2) 3 pts

In the figure below, rectangle ABCD overlaps a circle with AB passing through the centre of the circle and DC touching a point, S, on the circumference of the circle. The area of the shaded part is  $\frac{1}{3}$  of the area of the rectangle.



Take  $\pi = \frac{22}{7}$ .

Find the perimeter of the figure.

## Question 47 of 54

Primary 6 Math (Term 2) 2 pts

The airmail rates for a parcel to Hong Kong is shown below.

| Mass Step              | Hong Kong |
|------------------------|-----------|
| First 500 g            | \$12.00   |
| Every additional 100 g | \$ 2.50   |

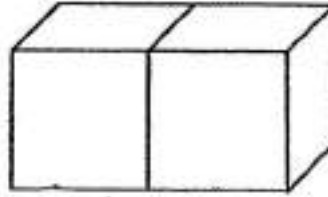
Audrey sent a parcel weighing 650 g to Hong Kong. How much did she pay for the mail?

Ans: \$ \_\_\_\_\_

**Question 48 of 54**

Primary 6 Math (Term 2) 2 pts

Two cubes are glued together to form the solid below. All the faces of the solid are painted covering a total surface area of  $160 \text{ cm}^2$ . What is the volume of one cube?

Ans: \_\_\_\_\_  $\text{cm}^3$ **Question 49 of 54**

Primary 6 Math (Term 2) 2 pts

Peter was given a fixed monthly allowance. In January, he spent \$160. He spent \$200 in February. Find the percentage increase in his expenditure.

Ans: \_\_\_\_\_ %

**Question 50 of 54**

Primary 6 Math (Term 2) 2 pts

At a café, Alan paid \$9.50 for a Swiss roll and 2 curry puffs.  
Ben paid \$18.50 for a Swiss roll and 8 curry puffs.  
What is the total cost of 3 curry puffs?

Ans: \$ \_\_\_\_\_

**Question 51 of 54**

Primary 6 Math (Term 2) 1 pt

For questions which require units, give your answers in the units stated. (5 marks)

Find the value of  $7.03 \times 80$ .

**Question 52 of 54**

Primary 6 Math (Term 2) 2 pts

A string is cut into three shorter pieces. The first piece is  $\frac{6}{7}$  the length of the second piece but 3 times as long as the third piece. Express the length of the longest piece of string as a fraction of the total length of all 3 pieces.

## Question 53 of 54

Primary 6 Math (Term 2) 2 pts

Justus fills two types of bottles, small and large, completely with water. 27 ℓ of water is used to fill 12 small bottles and 2 large bottles. The total capacity of 2 large bottles is the same as the total capacity of 3 small bottles of water. What is the capacity of a large bottle of water? Leave your answer in litres.

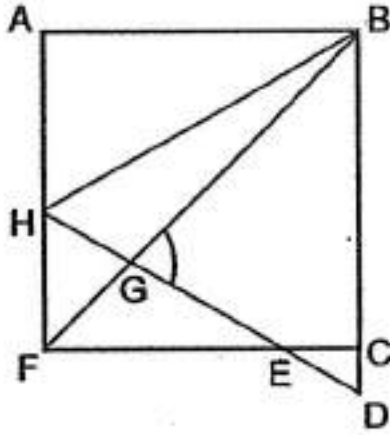


Ans: \_\_\_\_\_ ℓ

## Question 54 of 54

Primary 6 Math (Term 2) 2 pts

In the figure below,  $ABCF$  is a square,  $HBD$  is an equilateral triangle and  $BGF$  is a straight line. Find  $\angle BGD$ .



Ans: \_\_\_\_\_ °