

Give me 5!

Put 48 into 3 groups

$$5386 + 3592 = \boxed{}$$

What is a quarter of 60?

$$4723 - 2999 = \boxed{}$$

$$5 \times 32 = \boxed{}$$

Give me 5!

Put 48 into 3 groups 16

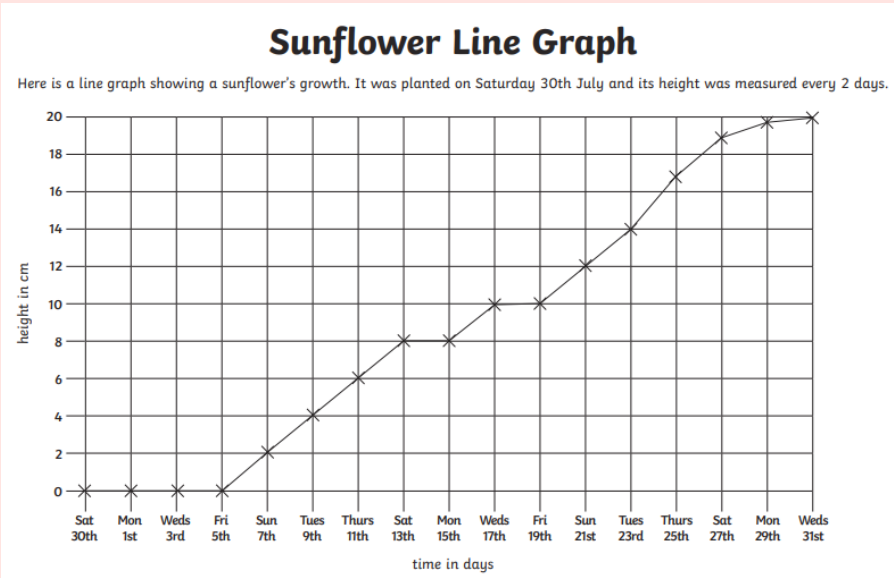
$$5386 + 3592 = 8978$$

What is a quarter of 60? 15

$$4723 - 2999 = 1724$$

$$5 \times 32 = 160$$

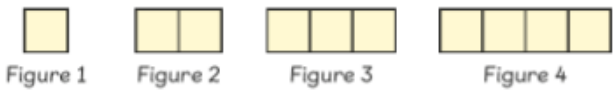
Today we are challenging ourselves with the mind workout.
First, look at this line graph. Can you think of 3 pieces of information you know from looking at the graph?



The perimeter is the length of the outside of a shape. Here, the perimeter of each little square is 4cm. That means each line is 1cm. When the squares are put together to form a rectangle, the perimeter changes, as we are just looking at the outside of the whole shape

Mind Workout

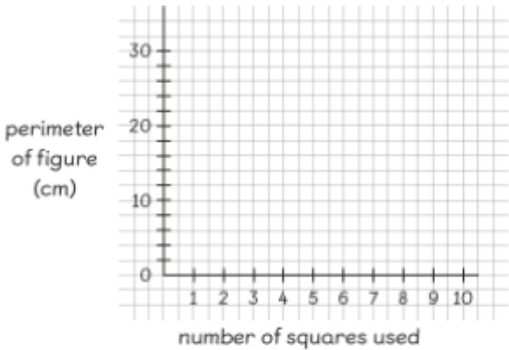
Here are some patterns formed using squares with the same perimeter. The perimeter of each square is 4 cm.



1 Complete the table below.

| Figure | 1 | 2 | 3 | 4 |
|--------------------------|---|---|---|---|
| Number of squares used | | | | |
| Perimeter of figure (cm) | | | | |

2 Draw a line graph to show how the perimeter of each figure changes with the number of squares used.



We join the points up to predict the perimeter of other shapes. But some people think we should not do so. Why?


3 Use the graph to find the perimeter of the figure formed using 10 squares.


Mind Workout


Date:_____


1

Here are some patterns formed using matchsticks.
Complete the table.


Figure 1


Figure 2


Figure 3


Figure 4

Complete the table below.

| Figure | 1 | 2 | 3 | 4 |
|-----------------------|---|---|---|---|
| Number of triangles | 1 | | | |
| Number of matchsticks | 3 | | | |

2

Draw a line graph to show how the number of matchsticks used changes with the number of triangles formed.

number of matchsticks

25

20

15

10

5

0

1

2

3

4

5

6

7

8

9

10

number of triangles

3

How many matchsticks are needed to form the pattern with 10 triangles?
Does your answer agree with the graph in Question 2?

Graphs

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Answers

1 Here are some patterns formed using matchsticks. Complete the table.





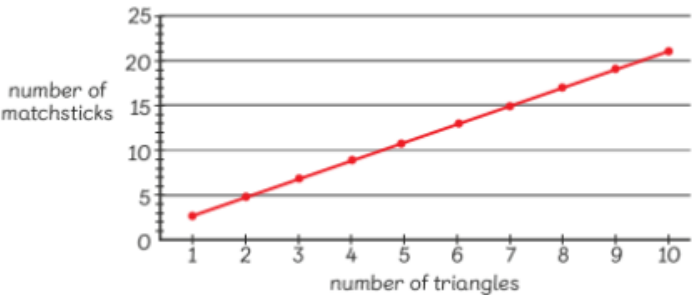


Figure 1 Figure 2 Figure 3 Figure 4

Complete the table below.

| Figure | 1 | 2 | 3 | 4 |
|-----------------------|---|---|---|---|
| Number of triangles | 1 | 2 | 3 | 4 |
| Number of matchsticks | 3 | 5 | 7 | 9 |

2 Draw a line graph to show how the number of matchsticks used changes with the number of triangles formed.



3 How many matchsticks are needed to form the pattern with 10 triangles? Does your answer agree with the graph in Question 2?

21, this is shown on the graph.

Challenge

The table shows the number of books borrowed by pupils from the school library over a period of five months.

| Month | Number of books |
|-----------|-----------------|
| July | 1000 |
| August | 1300 |
| September | 1350 |
| October | 1550 |
| November | 1500 |

Hannah says that the greatest monthly increase in the number of books borrowed was from September to October.

Is she correct?

Draw a line graph to help you explain your answer.