

IT'S FRIDAY AND THE SUMMER HOLIDAYS START HERE!

(Well, after you've completed today's learning!)

Why was the  
maths book so  
sad and  
depressed?



Because it had a  
lot of problems!



Or maybe it  
was because  
it was the  
school  
holidays?!



## Answers to yesterday's warm up.

1. 200
2. 3010
3. £4.07
4. Ten
5. 8
6. 15 minutes (quarter of an hour)
7. 80
8. 4 metres
9. 9
10. 18:15

I hope you got on ok with those questions!  
Do try to work out your mistake if you got any  
wrong...we all learn from doing this!



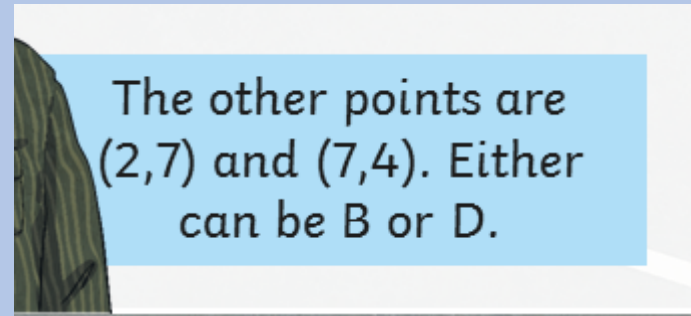
## Answer to Activity 1:

(1,4) (6,4) (6,1) (1,1)

## Answer to Activity 3:

(3,2) (3,6) (7,6) (7,2)

## Answer to Activity 2:

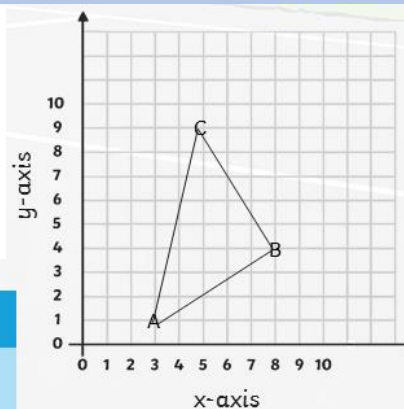


## Answer to Activity 4:



C could also be (8,1).

There could be an answer where the line drawn is one of the 2 equal sides of a right-angled isosceles triangle. (5,9)



Can you see another one like this?

(0,6)

You could have 'C' at:  
(8,1) or  
(3,4) or  
(0,6) or  
(5,9)

Well done if you found two solutions or more.

Answer to  
Activity 5a:

(2,3) (2,9)  
(8,3) (8,9)

5b:

(2,3) (2,10)  
(7,3) (7,10)

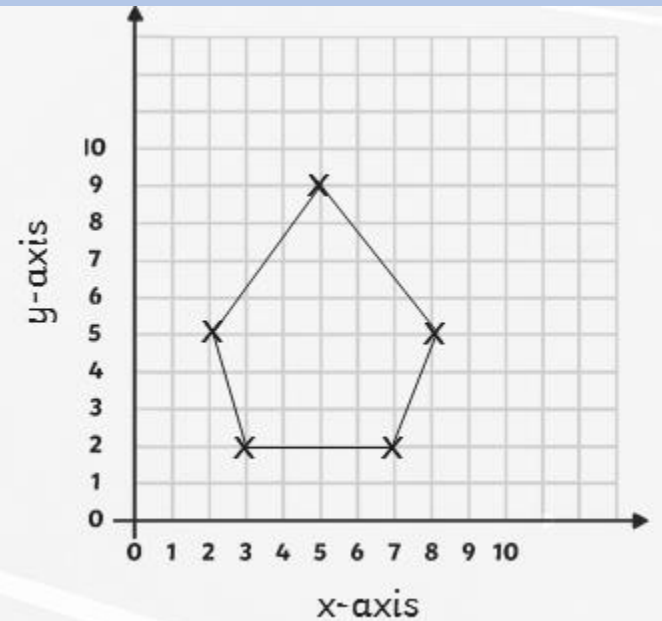
And

(2,3) (9,3)  
(9,8) (2,8)

Answer to Activity 6:



Points could be  
(2,5) and (7,2).



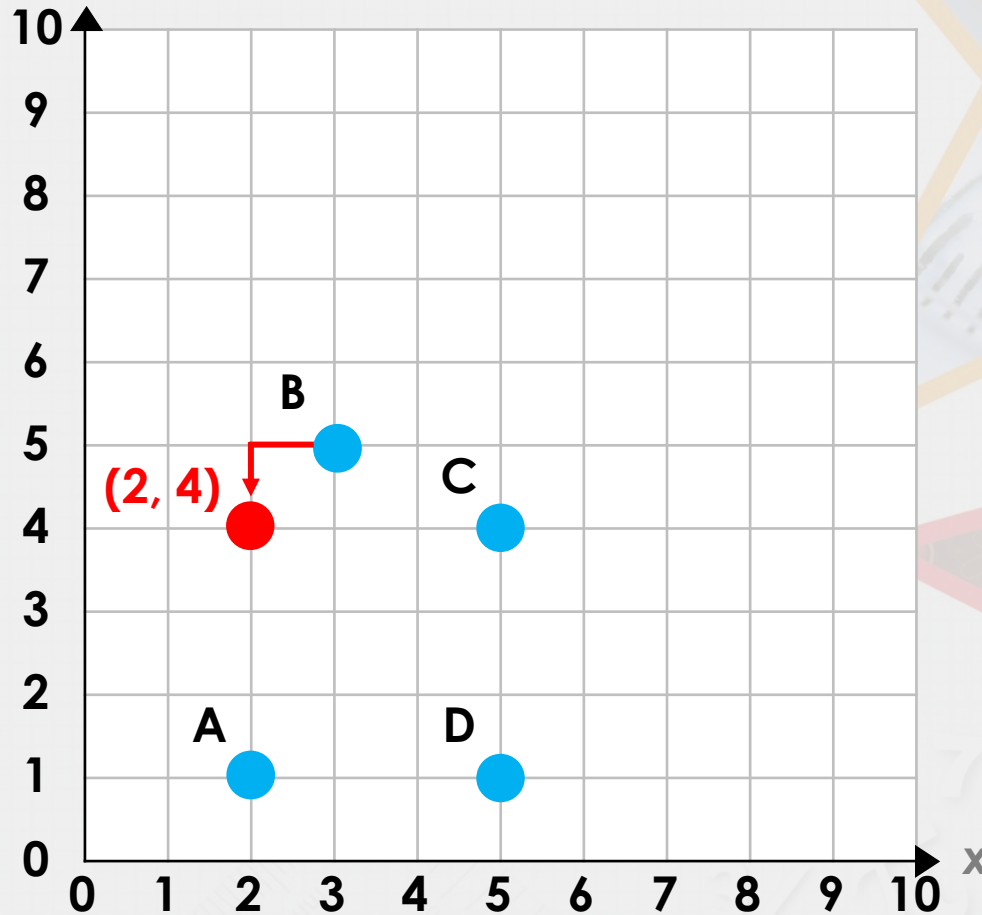
Don't forget – if you didn't quite 'get it', have a look at where you slipped up.



## Answer to Activity 7:

Move (translate) one point to create the vertices for a square.

y Record the new coordinates.

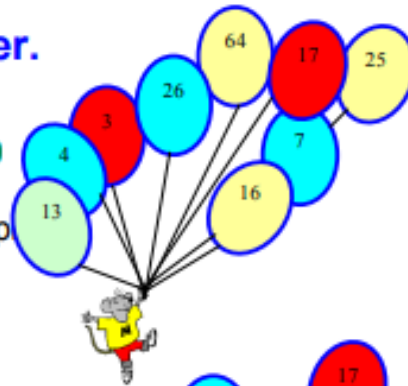


# Answers to yesterday's brainteaser.

## Balloon bursting - answer.

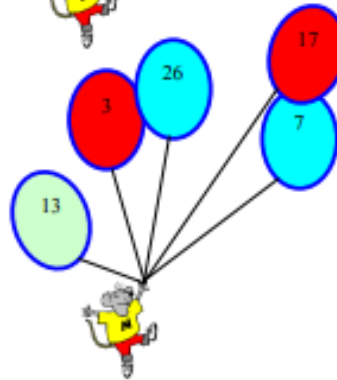
### 1. Balloons with a multiple of 9

As you know the digits of a multiple of 9 add up to 9 so that takes away 18, 45, 54, 63 and 99



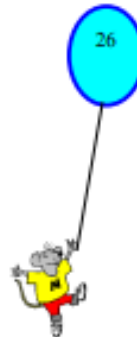
### 2. Square number balloons

The square numbers are:  
4, 16, 25 and 64



### 2. Prime number balloons

A prime number is a whole number with only two factors.  
The prime numbers are:  
3, 7, 13, and 17



That leaves just 26.



## Activity 1:

On the previous slides (answer to activity 7) you had to TRANSLATE one of the points on the grid to create a square.

In your workbooks, write down what you think TRANSLATE means in mathematics.



## Introduction answer:

We are going to look at TRANSLATIONS in maths today. When you translate a coordinate in maths, you MOVE it. You don't change it in any way. You just move it or slide it.

Did you get that definition correct?

### Activity 1 :

Have a look at this activity and have fun moving the shapes for 5 minutes.

<https://www.mathsisfun.com/geometry/translation.html>





a) Sofia wants to look at the jetty.



I will draw the lines on the grid to show the drone going 2 right and 2 up.



b) The drone starts at the tower for this movement.



I wonder whether I could work out where the drone would go without drawing on the map.



Sofia sent the drone to the castle.

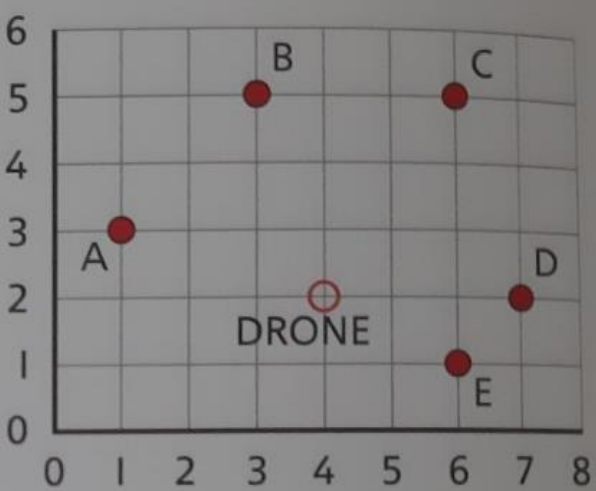
Sophia has a drone and she is controlling it so that she can take pictures of different places.

Read through this page of the book and look at what she's doing.

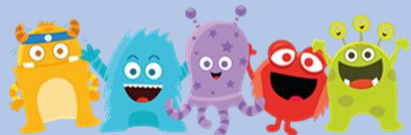
These commands will take the drone to all of the places marked on the map in turn.

What order will the drone visit the places in?

- 1 left, 3 up
- 4 right, 3 down
- 1 left, 3 up
- 4 down
- 5 left, 2 up



Point	X	Y
A	1	3
B	3	5
C	6	5
D	7	2
E	6	1
DRONE	4	2



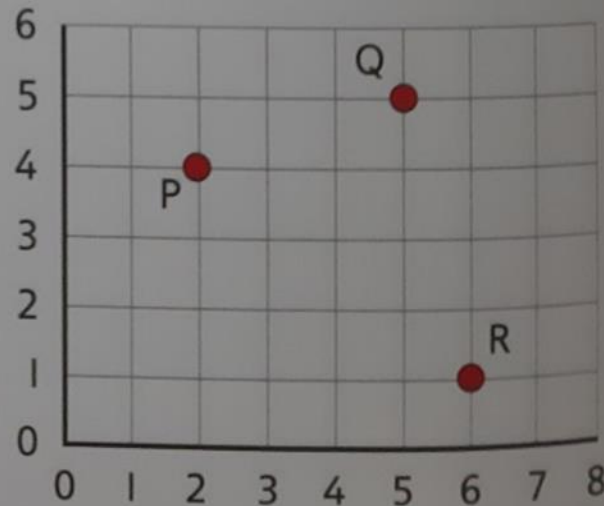
Activity 1: Sophia is using her drone to explore. She visits each place in the order on the picture.

In your books list the order (use the letter names) that she visits the sites in.

The map shows the position of three towns.

The journey from P to Q is '3 right, 1 up'. What journeys do these instructions describe?

- a) 3 left, 1 down
- b) 4 right, 3 down
- c) 4 left, 3 up
- d) 1 right, 4 down
- e) 1 left, 4 up

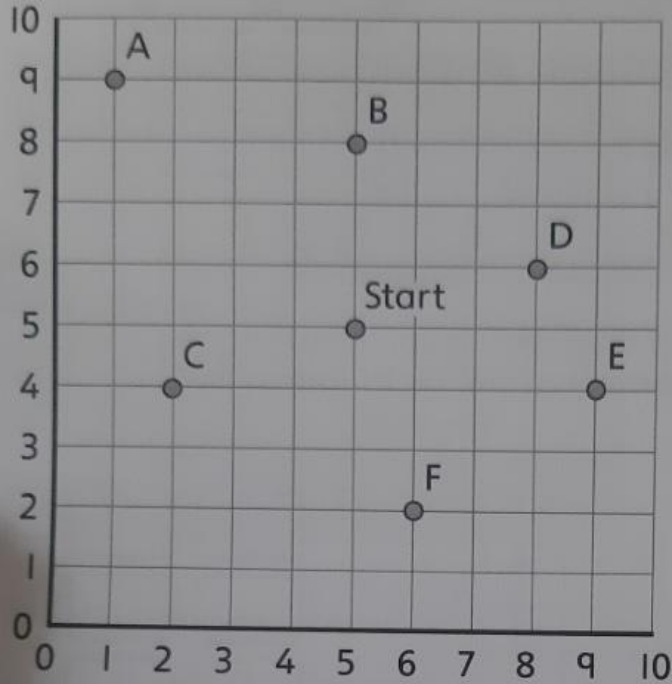


Activity 2: Follow the instructions above.

You will need to start from 'Q' at instruction (a).



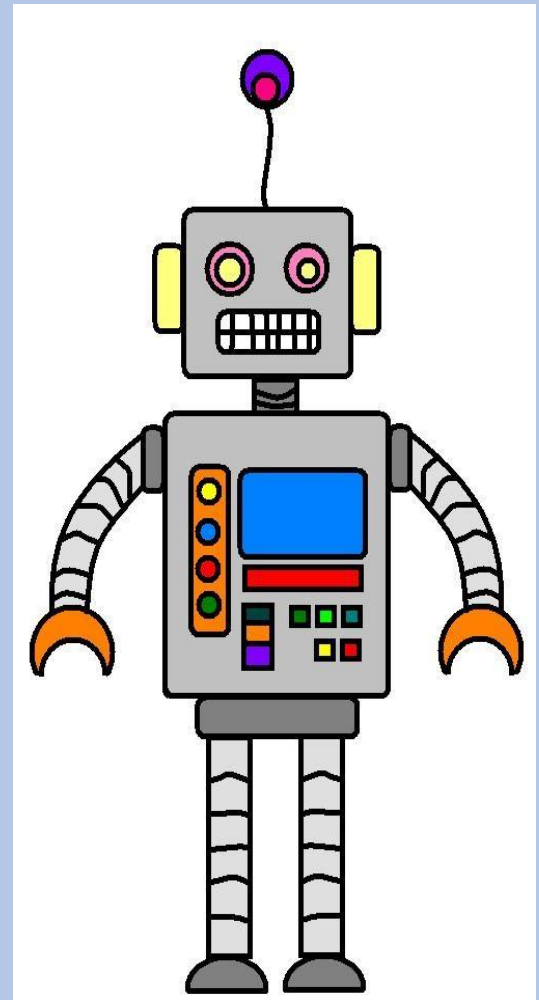
2 A robot starts at (5,5) and moves from point to point around the grid:



- 3 right, 1 up
- 7 left, 3 up
- 1 right, 5 down
- 3 right, 4 up
- 1 right, 6 down
- 3 right, 2 up

What order does the robot visit the points in?

Start → D → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_ → \_\_\_\_\_



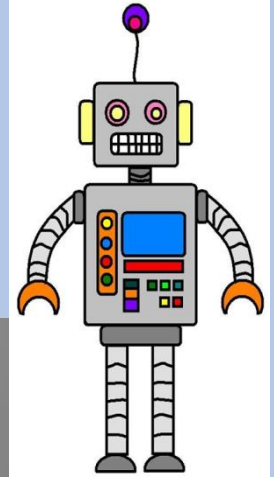
### Activity 3:

In your workbooks, write down the order the robot visits each place.



## Activity 4:

Remember to always start at coordinates (2,2).



3 Starting at (2,2), the instruction 2 right, 1 up takes you to (4,3).

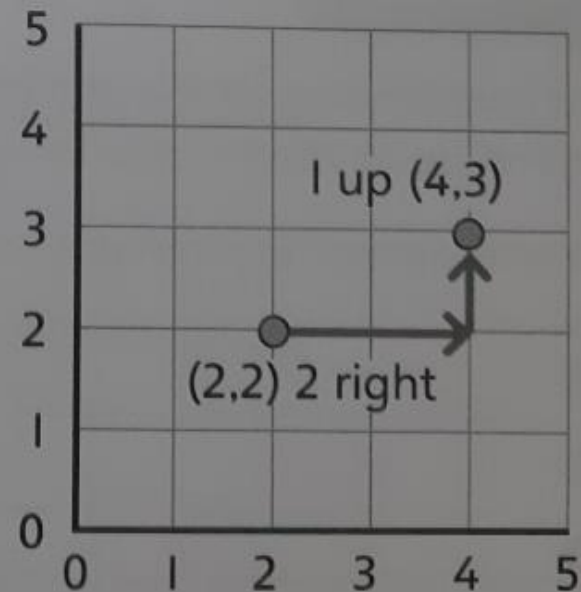
Always starting from (2,2), where would these instructions take you?

a) 2 right, 1 down  $(\square, \square)$

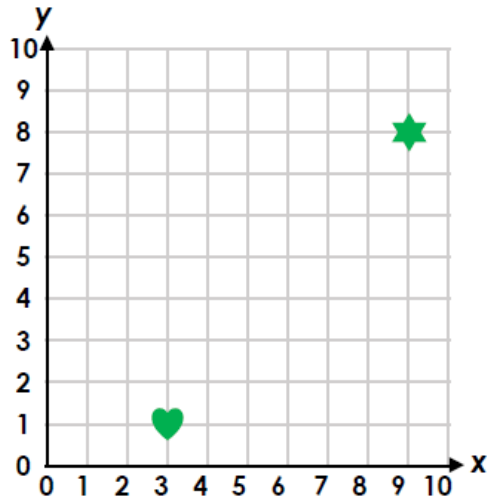
b) 1 left, 1 up  $(\square, \square)$

c) 2 left, 2 down  $(\square, \square)$

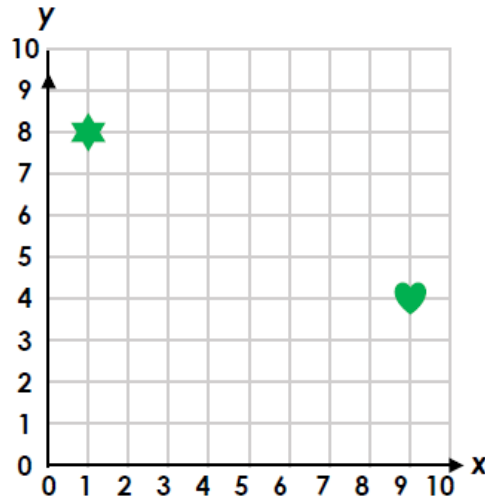
d) 0 right, 2 up  $(\square, \square)$



5a. Describe the movement needed for the star to reach the heart.

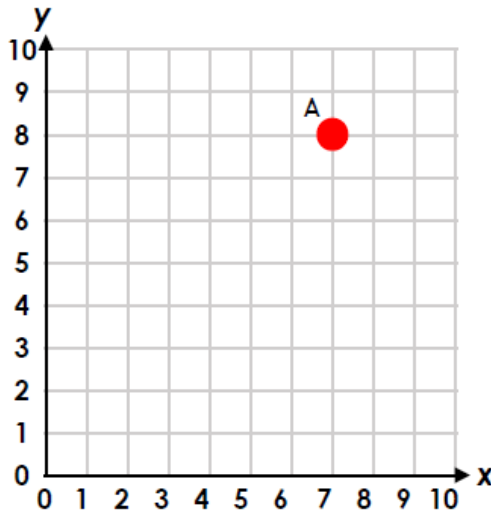


5b. Describe the movement needed for the heart to reach the star.

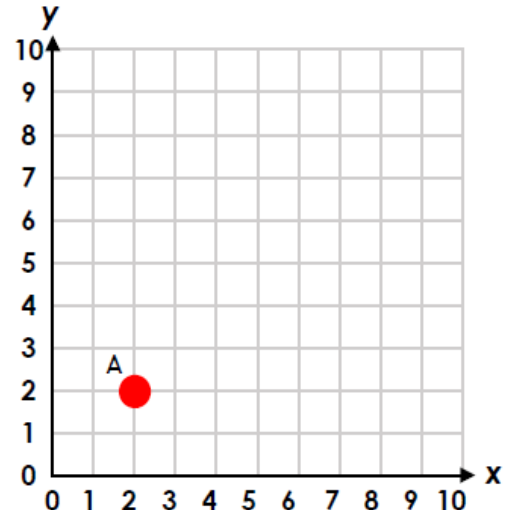


Activity 5:

6a. Translate point A 5 left and 7 down.  
What are the coordinates?



6b. Translate point A 7 right and 6 up.  
What are the coordinates?



Activity 6:



## Activity 7:

7a. A point is plotted on a grid at  $(6, 8)$ .

It is translated 4 left and 5 down.

What are the new coordinates?

7b. A point is plotted on a grid at  $(0, 4)$ .

It is translated 8 right and 5 up.

What are the new coordinates?

## Activity 8:

8a. Eve plotted a point on a grid at  $(5, 2)$ .

It is translated to  $(8, 8)$ .

How is it translated?

8b. Saira plotted a point on grid at  $(7, 8)$ .

It is translated to  $(3, 7)$ .

How is it translated?



## SUMMER CHALLENGE

Go on TTRockstars at least FOUR times each week of the school holidays.

This will ensure that you don't forget all those lovely times tables that you've worked so hard on learning!

If you go on TT frequently, you'll have a 'head start' in Year 5 and you'll impress Miss Perkins, Miss Kisby and Miss Tysoe with your knowledge!

Yes! We accept the challenge!







**KEEP  
CALM  
IT'S  
SUMMER  
HOLIDAYS**





Answer to Activity 1:

The order is:

B  
D  
C  
E  
A

Answer to Activity 2:

The order is:

P  
R  
P  
(3,0)  
P

Answer to Activity 3:

The order is:

D  
A  
C  
B  
F  
E

Answer to Activity 4:

- a) (4,1)
- b) (1,3)
- c) (0,0)
- d) (2,4)

Answers to Activities 5, 6, 7 and 8

5a. 6 left and 7 down

6a. (2, 1)

7a. (2, 3)

8a. 3 right and 6 up

5b. 8 left and 4 up

6b. (9, 8)

7b. (8, 9)

8b. 4 left and 1 down