Hello again Year 5,

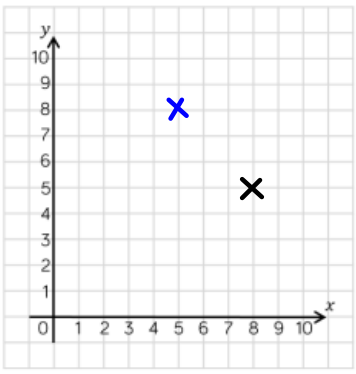
Hope you are all well and still working hard.

2 weeks to go until the summer holidays!

I saw on class pages that you have completed the unit looking at angles, so rather than repeat all that you covered last week I am going to move on to the next unit, which is Position and Direction. We will be looking at co-ordinates, reflection and translation over our last two sessions.

Jul 1-11:34

Co-ordinates



First of all we will re-cap co-ordinates.

We have an 'x' axis and a 'y' axis.

When we give co-ordinates we say the x-axis first and then the y-axis.

It may help you to remember the saying 'along the corridor and up the stairs.' Meaning we go along the x-axis first and then up the y-axis.

So, the black cross has the co-ordinates 8,5

The blue cross has the co-ordinates 5,8

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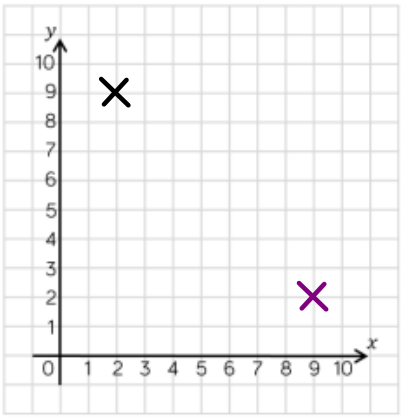

Place 6 different coloured crosses on the grid.

Make sure they are placed where lines cross.

Then write a sentence about each cross.

For example,

The black cross has the co-ordinates .....

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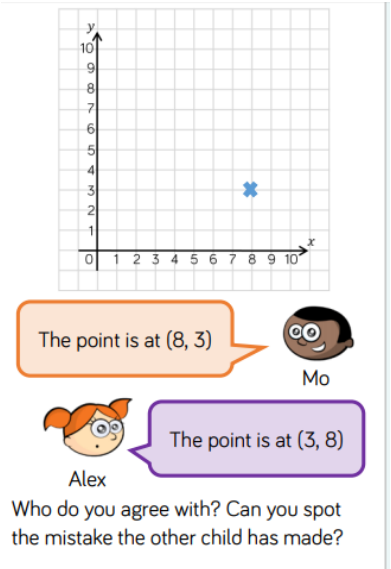
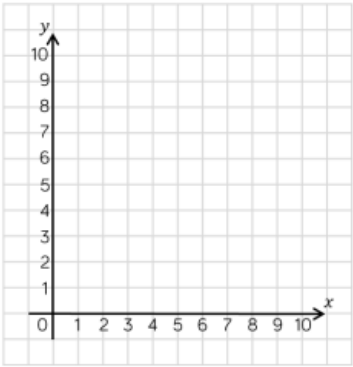




Annie is finding co-ordinates where the x-coordinate and the y-coordinate add up to 8.

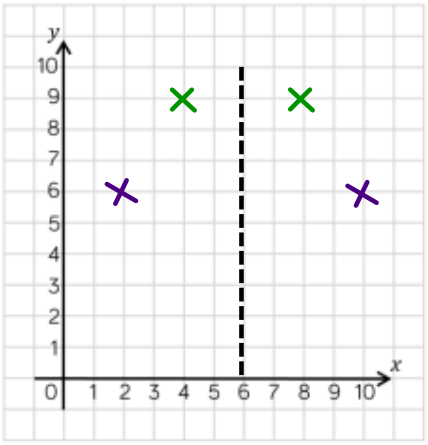
For example: (3, 5) $3 + 5 = 8$

Find all of Annie's coordinates and plot them on the grid. What do you notice?

Now do the same for a different total.

Jul 1-11:58

Reflections



----- mirror line

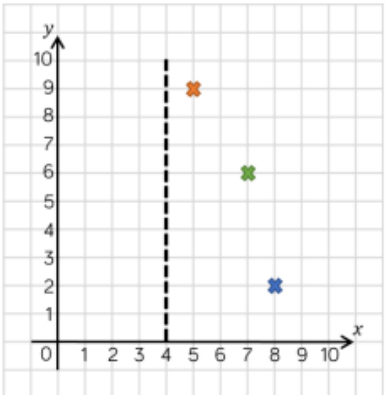
We will now look at reflecting co-ordinates in a mirror line.

The purple cross has the co-ordinates 2,6.

If I reflect it in the mirror-line, the new co-ordinates will be 10,6.

I can count from my object to the mirror-line, then count the same distance to where the image will be.

Jul 1-12:00



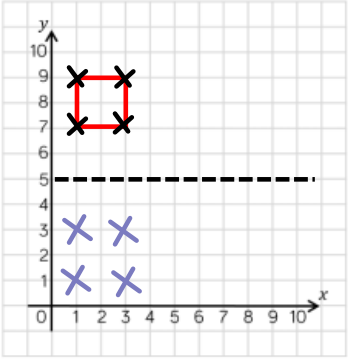
Can you reflect these points in the mirror-line?

Remember the original point is the 'object' and the reflection is the 'image'.

Jul 1-12:10

Reflections continued

X ---- mirror-line



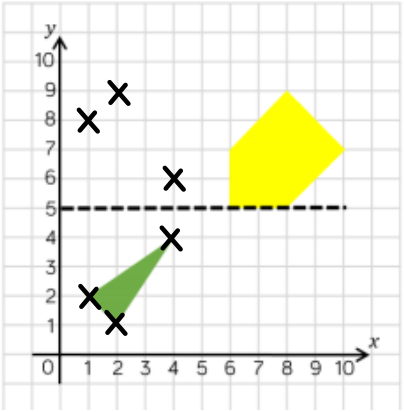
This square has the co-ordinates (1,7) (1,9) (3,9) and (3,7)

We are going to reflect each point to create a reflection.

The first square is the object. The reflection is the image.

Jul 1-12:12

X



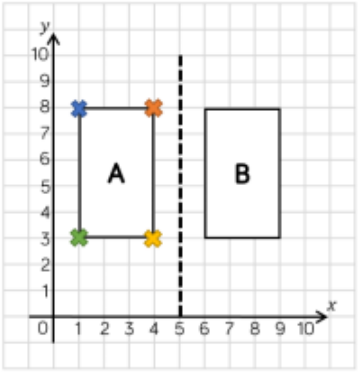
Reflect these two shapes in the mirror-line.

Tip: Reflect one point at a time.

Count the distance from the point to the mirror-line and then count the same distance away from the mirror-line.

Jul 1-12:19

Object A is reflected in the mirror line to give image B.
Write the coordinates of the vertices for each shape.



	Original Coordinate	Reflected Coordinate
✖		
✖		
✖		
✖		

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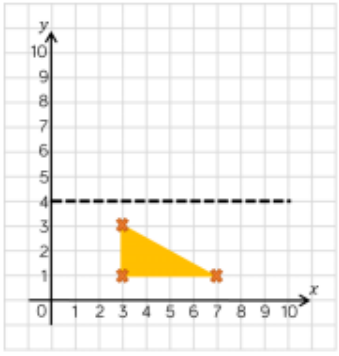
Write the coordinates of the image after the object (triangle) has been reflected in the mirror line.

(,)

(,)

(,)



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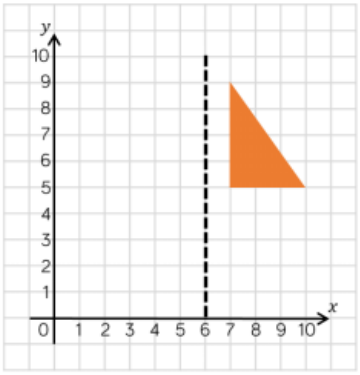

Eva reflects the shape in the mirror line.
She thinks that the coordinates of the vertices for the reflected shape are:

(5, 5) (2, 5) (2, 9)

Is Eva is correct?
Explain why.

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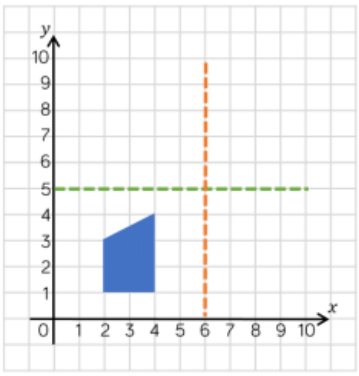

This is a shape after it has been reflected.
This is called the image.

Use the grid and the marked mirror lines to show where the original object was positioned.

Is there more than one possibility?

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