WALT reflect with co-ordinates.

WILF:

- Count squares from vertices.
- Find reflected shapes co-ordinates.
- Understand the movement does not change the shape.

+ Use reasoning language

Recap

What is reflection?
What is a co-ordinate?

New slide

Recap

What is reflection?

Reflection is when you copy the object into an image on the other side of the mirror line, at an equal distance.

What is a co-ordinate?

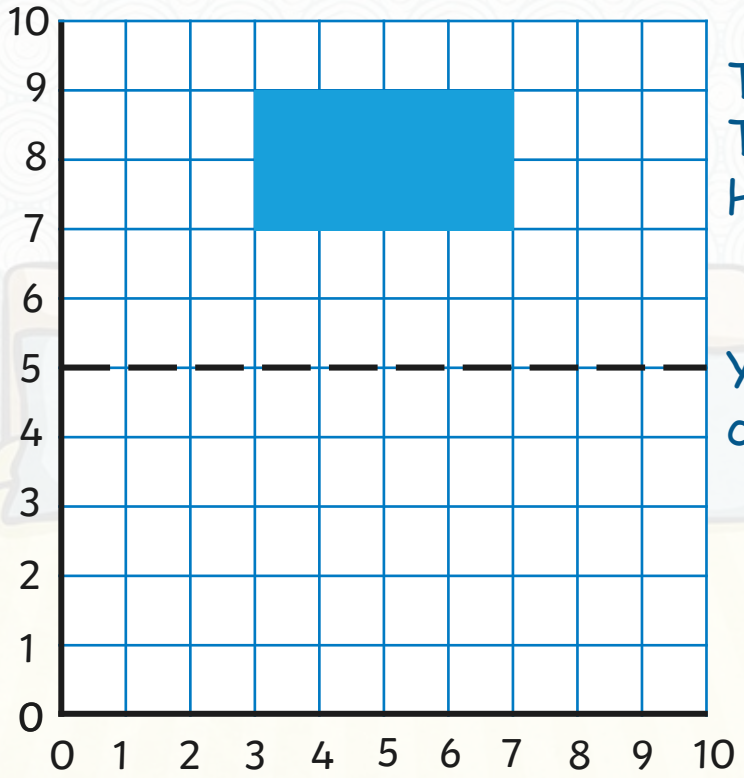
A co-ordinate tells us where a point on a graph is – (x axis, y axis) , (1,4). ☺

New slide

Reflection with Coordinates

Jermaine wants to reflect the blue rectangle in the mirror line.

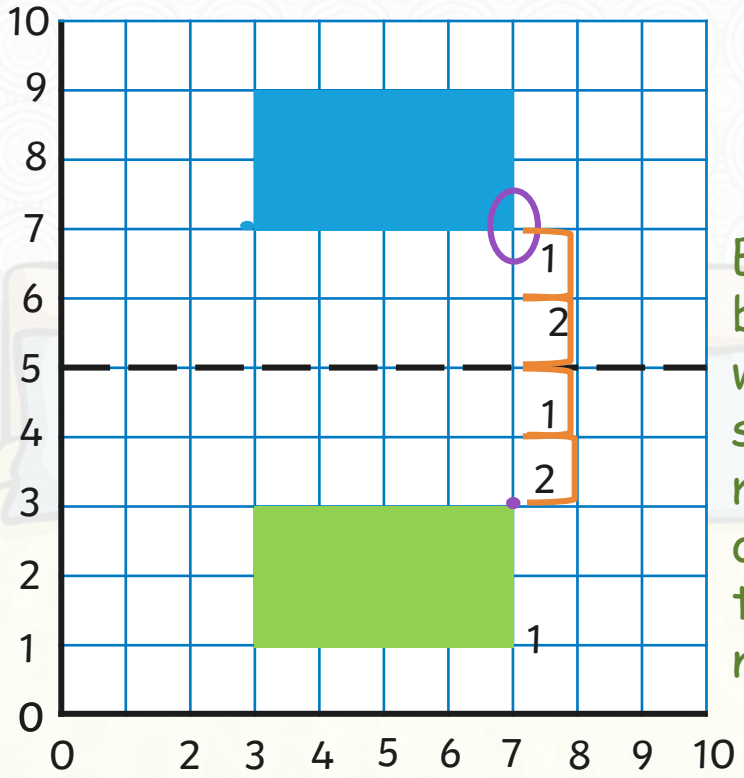
Draw the reflected shape.



Think back to Tuesday's work. How might you do this?

You can use a mirror, or co-ordinates.

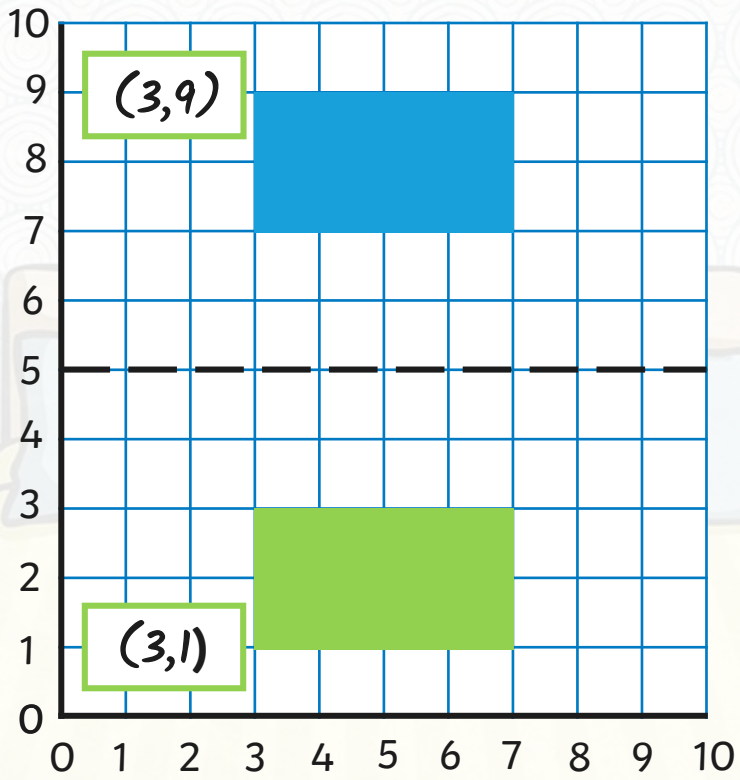
To reflect a shape on a graph with co-ordinates, start with one of the bottom vertices. Count the squares to the mirror line, then count the same number of squares the other side to plot the new point. Put a dot down, then repeat for each vertex. Once you have all dots, join them with a ruler to make the shape.



Example: for the bottom vertex you would count two squares to get to the mirror line, then two on the other side of the line to plot your new image point.

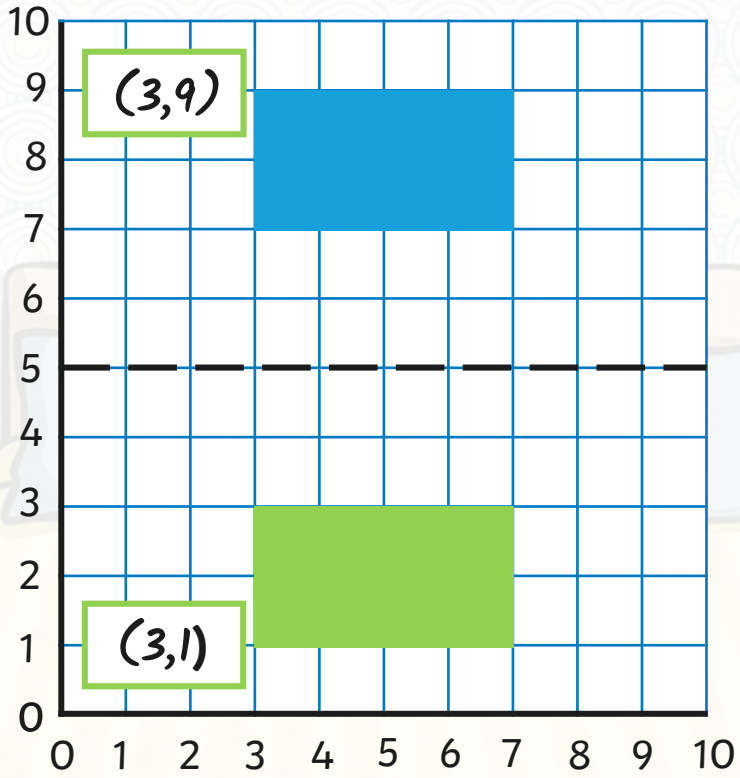
Reflection with Coordinates

Looking at a vertex of the original rectangle alongside the reflected vertex, what do you notice?



Reflection with Coordinates

Looking at a vertex of the original rectangle alongside the reflected vertex, what do you notice?

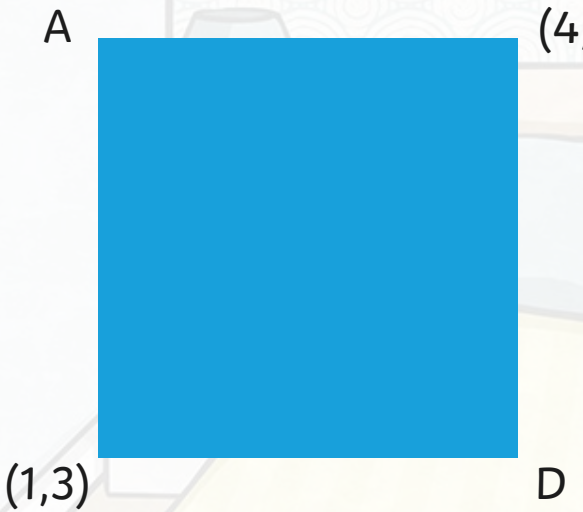


When reflecting a shape in a horizontal mirror line that passes through the y-axis, the x coordinate is the same but the y coordinate changes.

Reflection with Coordinates

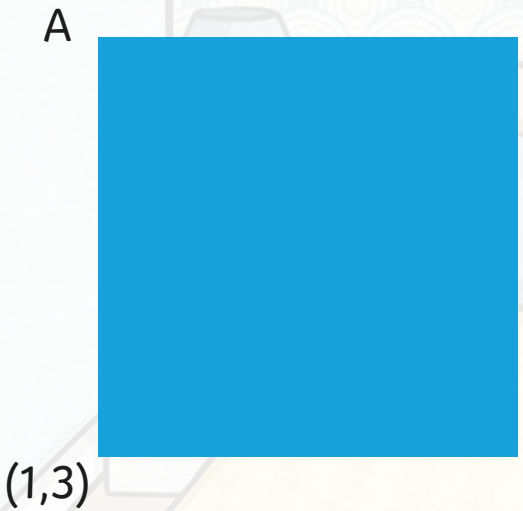
Shaun has reflected a square in the first quadrant.
Here is the reflected square.
The original coordinates of vertex A were (11,6).

Has the square been reflected in a mirror line that passes through the x or y-axis? How do you know?



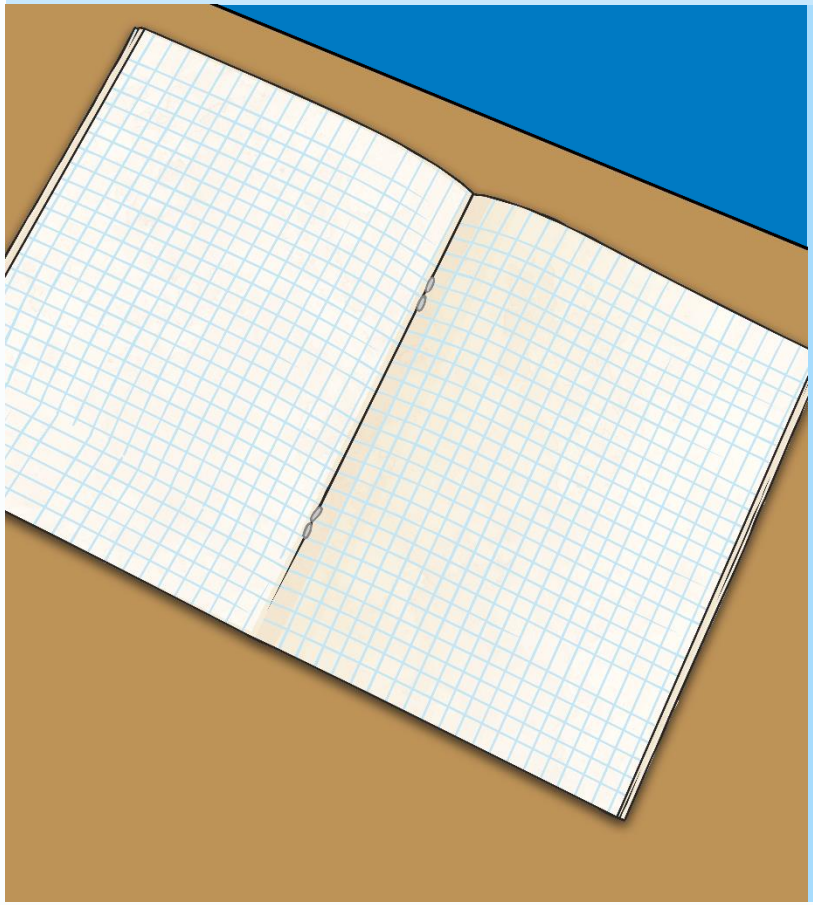
Has the square been reflected in a mirror line that passes through the x or y-axis? How do you know?

The mirror line passes through the x-axis. The original coordinate of A are (11,6) and A is now at (1,6). The x coordinate has changed and the y coordinate is identical. This shows that the mirror line is vertical and passes through the x-axis.



We know vertex A of the original square is (11,6) and the new position of A is (1,6). The difference between the x coordinates is 10. We can therefore deduce that the square is 5 squares from the mirror line.
We also know that the sides of the square are 3 squares in length. Vertex B was originally (14,6), C was (11,3) and D was (14,3).

Have a go at today's activity! T6. Week 3. Maths. Thursday Activity.



Choose A, B or C and
complete as many questions in that section as you can.

You may want to complete this in your maths book and take a picture.

If you want to complete it on Seesaw, click drawer, three dots, background, scroll down to the squares and select.
Then, three dots, shapes and select a line to make the shapes.