WALT translate shapes.

WILF:
-Understand what translation means
- Use co-ordinates to translate shapes.
- Focus on one vertex at a time.
- Keep the size and orientation of the shape the same.

Translating shapes is another kind of transformation. It is known as translation.
Like in reflection, the shape does not change size, colour or appearance.

In translation, the shape slides to a different position, rather than being mirrored. So, the original shape is entirely moved to a new position through sliding along the grid and there is no mirror line.

Click the image to watch a video on how. **Please only watch the first 2 minutes and 17 seconds.**

Stop when you see a grid with four sections - that is for Year 6 and will only confuse you if you try it now.
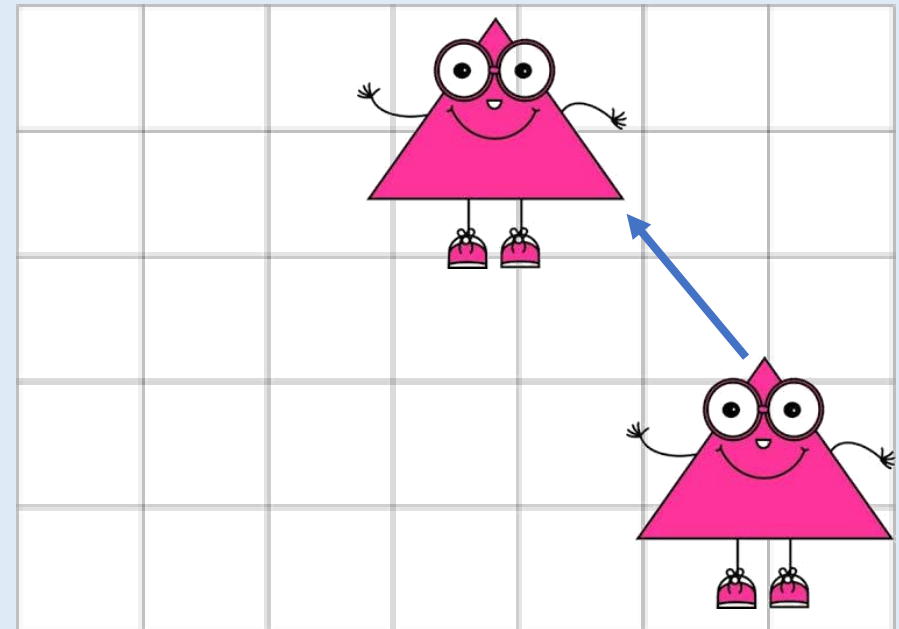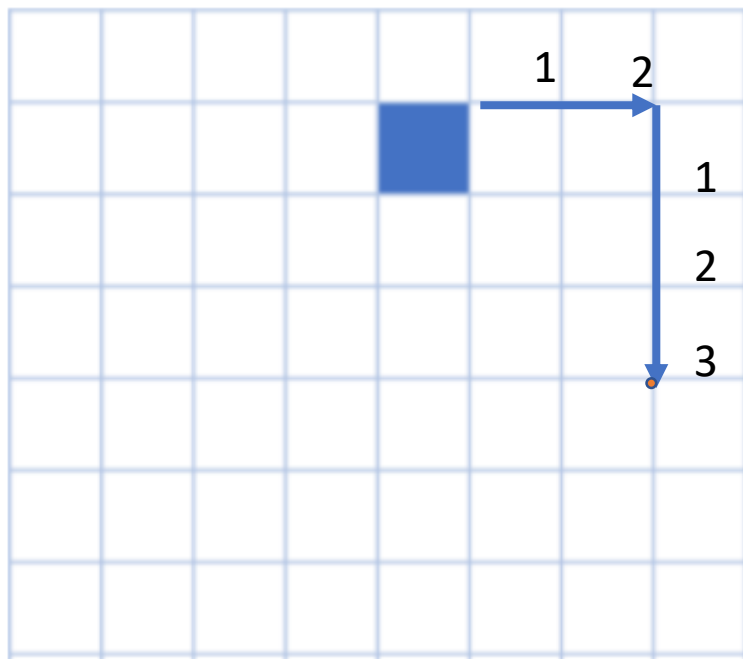
Have a go at this.
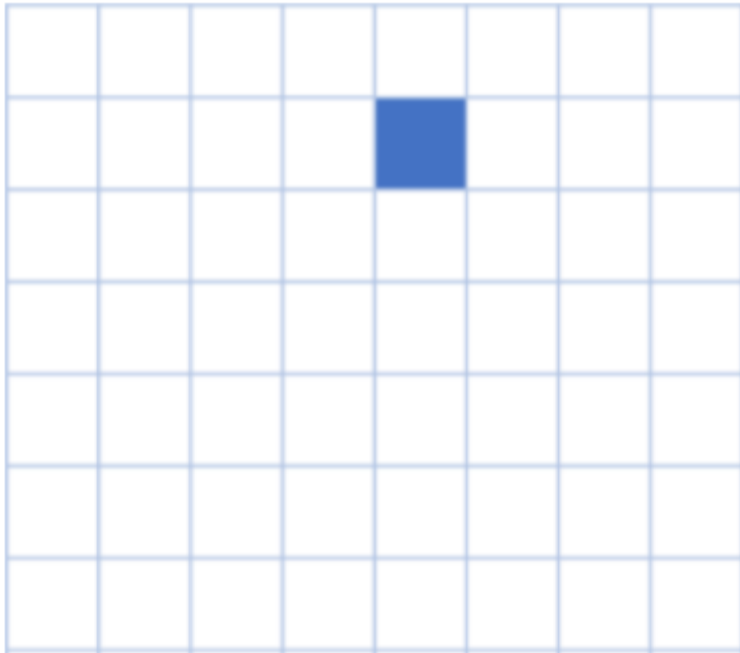
A square is translated two squares to the right and three down.
Draw the new position of this square.

Bonus: once you've figured it out, are there any other ways I can get the shape to this position?

A square is translated two squares to the right and three down.

Draw the new position of this square.

Move one vertex at a time.

Start with the first direction, right – do not draw the point here – then the second, down. Use your finger to guide you.

Once you reach the new position, draw a point on the vertex of that grid square.

Once you have translated all your vertices points, join the lines.

Describe the translation of shape A to shape B, C and then D. Use the stem sentence to help you.

Shape A has been translated _____ left/right and _____ up/down.
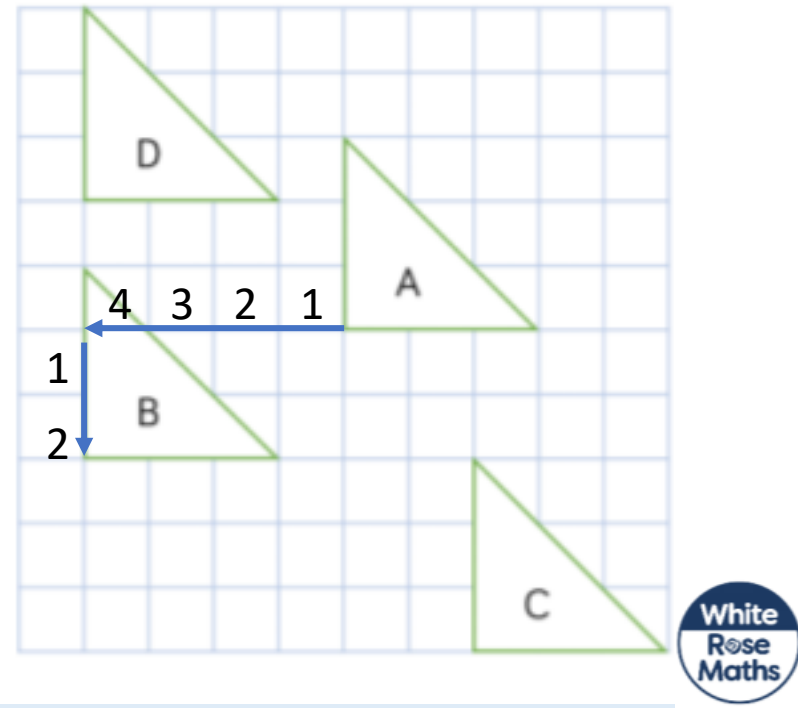
To do this, choose one vertex to focus on – count the square movements right or left, then up or down to the same vertex on the next shape. So, if it's A's right angle vertex, you need to count to B's right angle vertex.
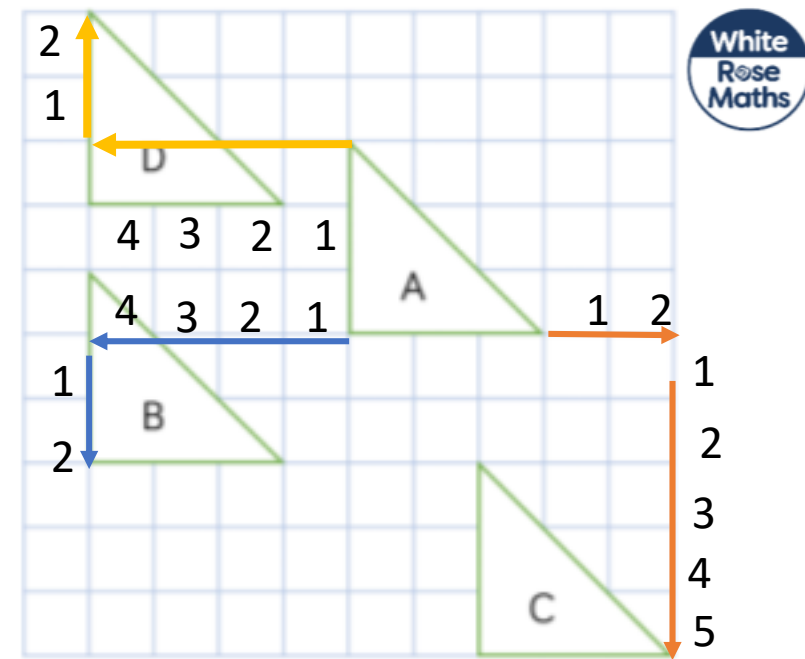
You only need to use one vertex to find the translation movement, as they all move the same way to keep the same shape dimensions.

Shape A has been translated 4 squares left and 2 squares down to B.

Try it yourself for C and D.

Describe the translation of shape A to shape B, C and then D. Use the stem sentence to help you.

Shape A has been translated _____ left/right and _____ up/down.

Shape A has been translated 2 squares right and 5 squares down to C.

Shape A has been translated 4 squares left and 2 squares up to C.

Wondering why the order matters? It's because we always travel left or right along the x axis first, then up or down the y axis – therefore, if we have our movements in right/left, then up/down, they are similar to co-ordinate order.
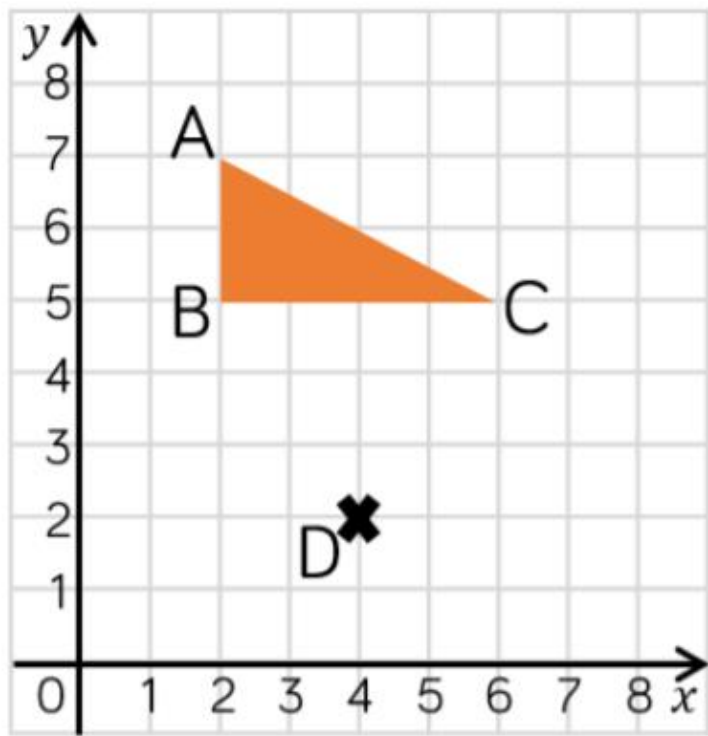
Triangle ABC is translated so that point B translates to point D
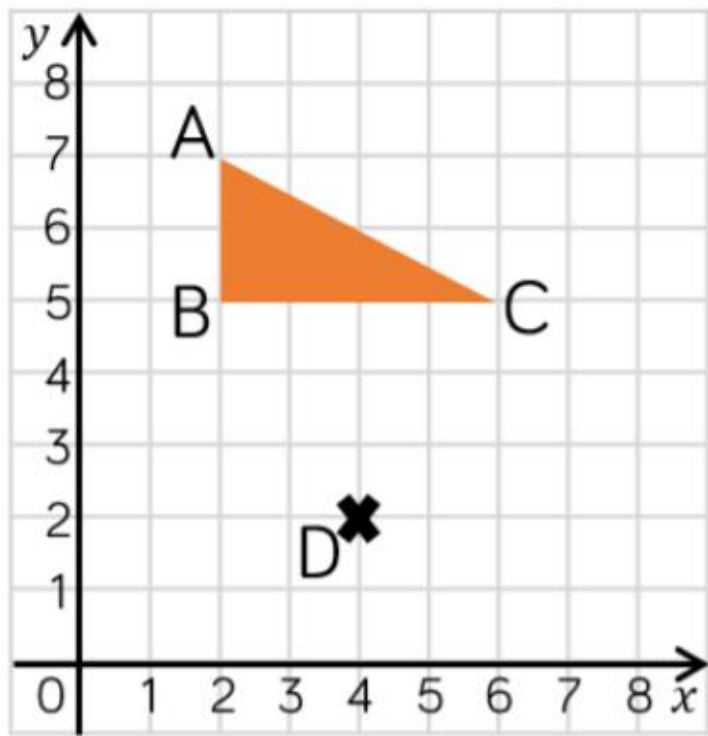
> It won't fit on this grid!

Amir

Do you agree with Amir?
Explain your thinking.

Triangle ABC is translated so that point B translates to point D

It won't fit on this grid!

Amir

Do you agree with Amir?
Explain your thinking.

Amir is incorrect, the shape is translated two to the right and three down. It will fit on this grid.

White Rose Maths

Now try the activity ☺

Read the questions carefully.

I would like you to complete as many of today's questions as you can, working your way through and stopping if it gets too challenging and stressful.