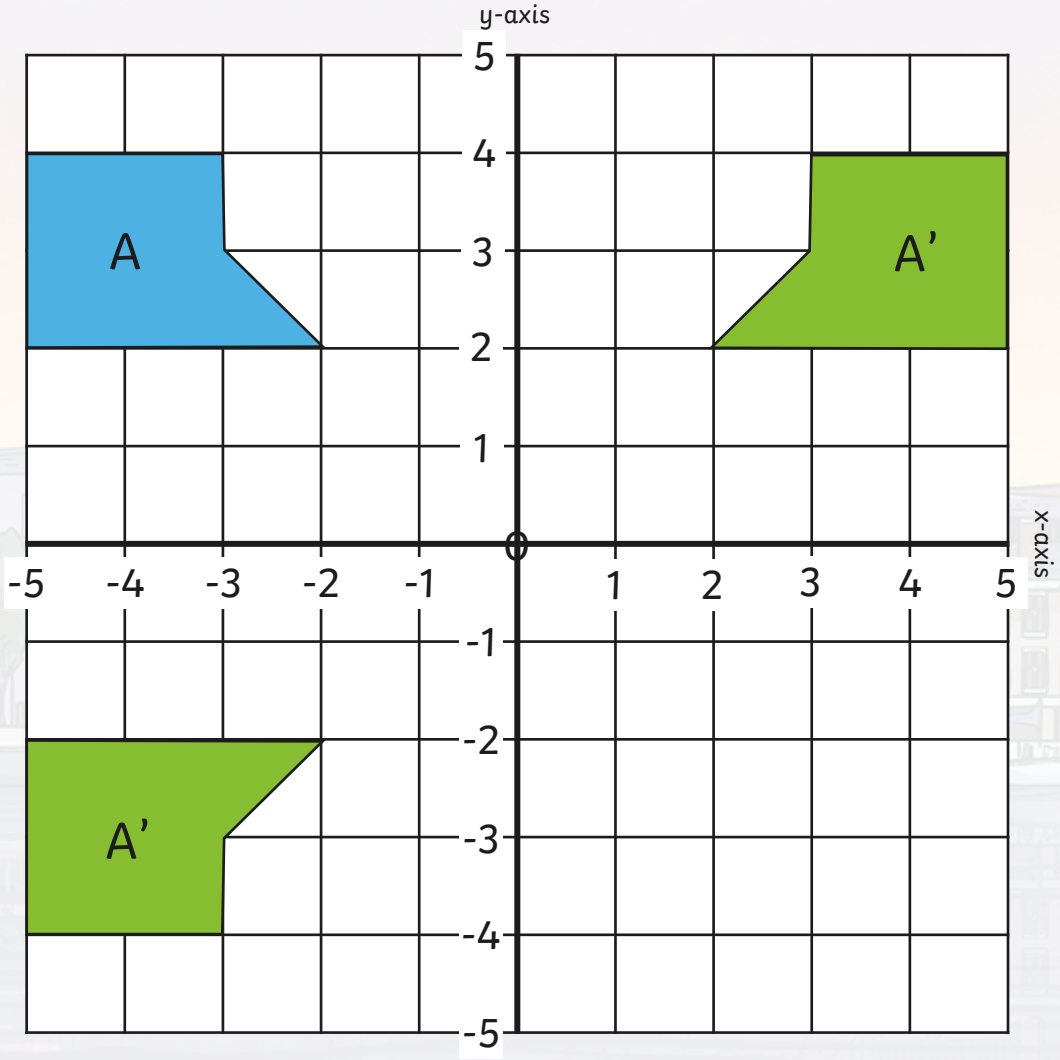
Diving into Mastery

Reflections

Aim

- Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Reflections | **Diving**



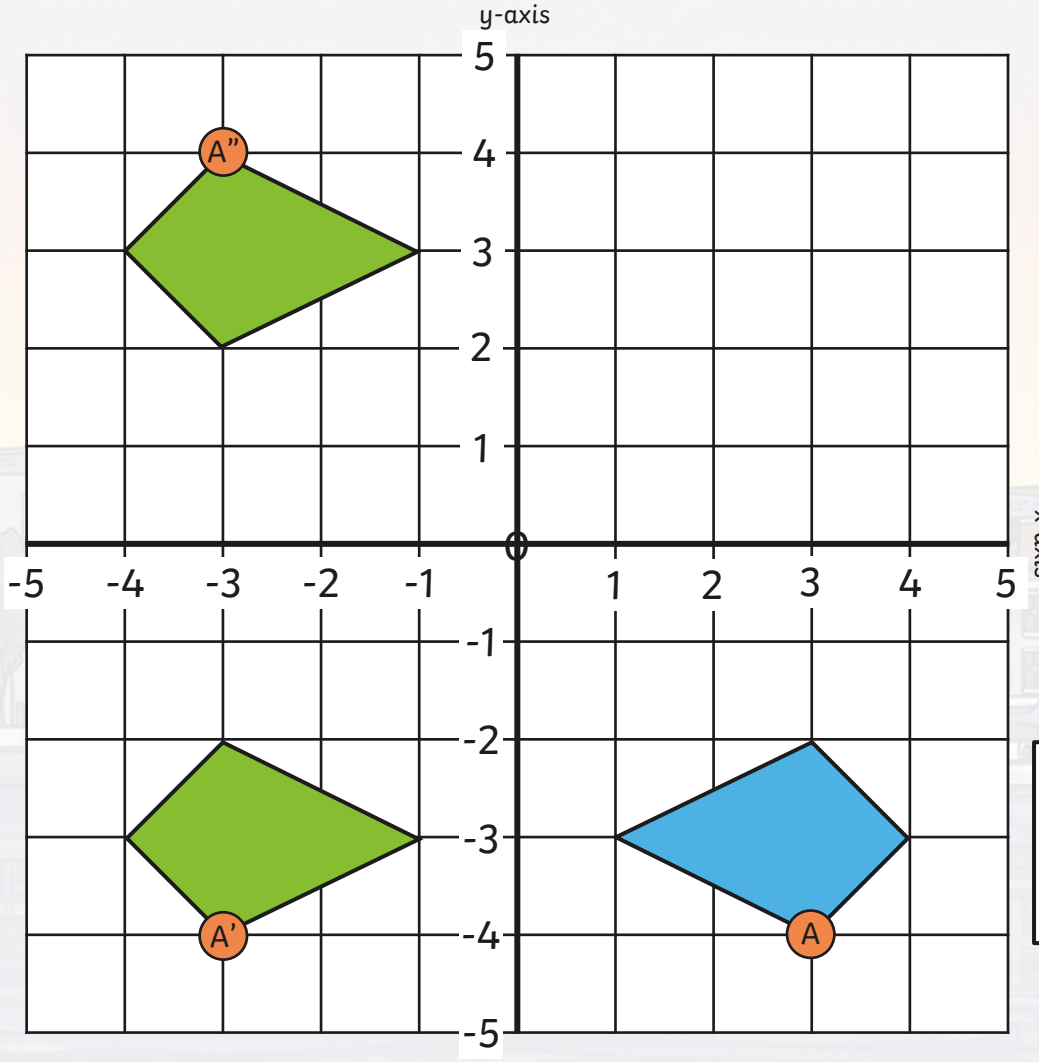
Shape A is reflected in the y-axis.
Give the coordinates of the reflected shape.

(2,2) (3,3) (3,4)
(5,4) (5,2)

The original shape is now reflected in the x-axis.
Give the coordinates of the reflected shape.

(-5,-2) (-2,-2) (-3,-3)
(-3,-4) (-5,-4)

Reflections **Deeper**

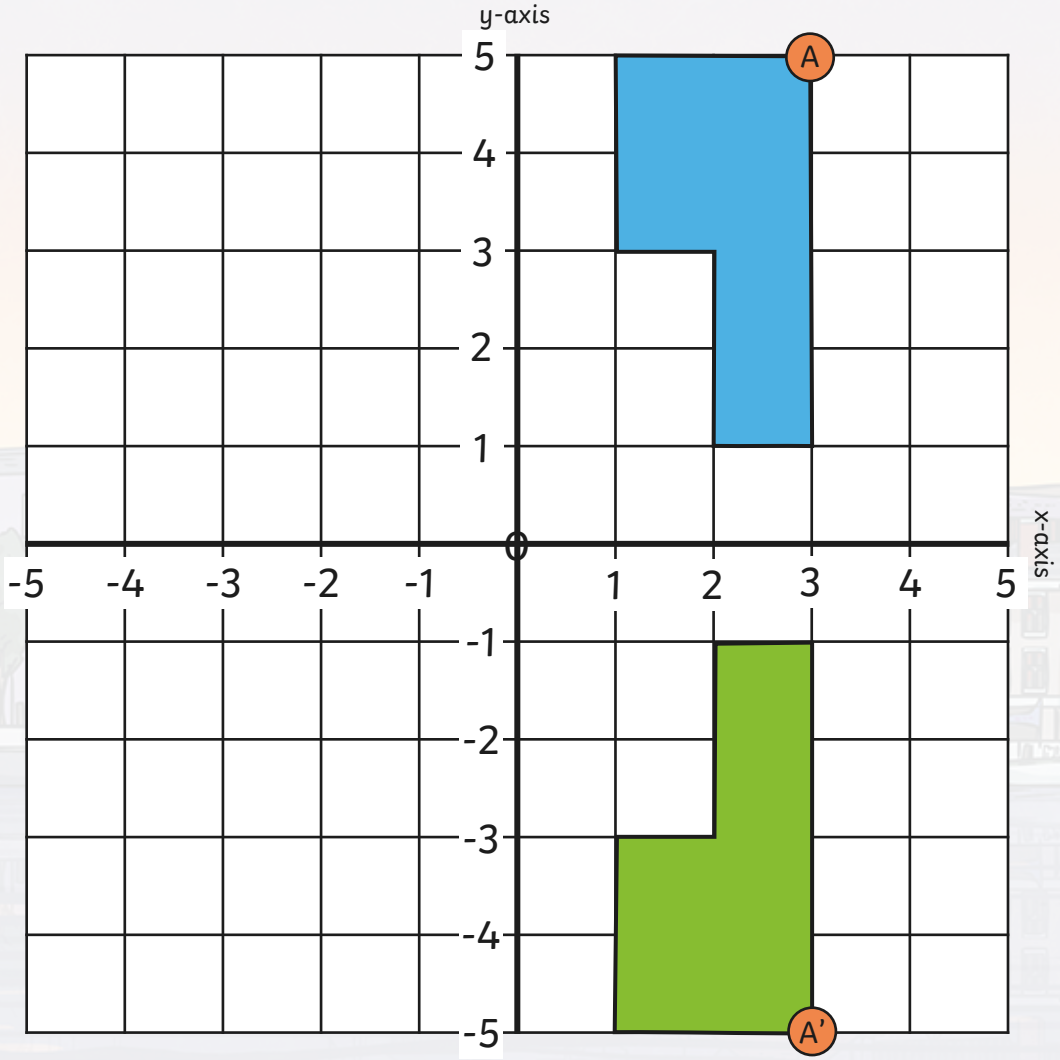


Dylan is incorrect. He has given the coordinate for the wrong vertex. Vertex A is now at (-3,4) after the reflection in the x-axis.

After both reflections vertex A has now moved to (-3,2)

Is Dylan correct? Explain your answer.

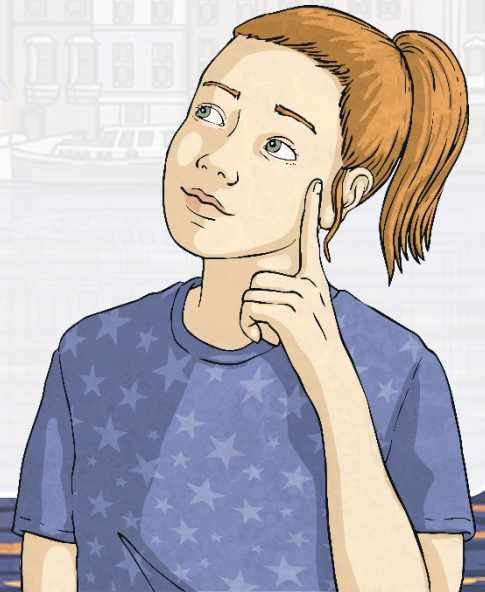
Reflections **Deepest**



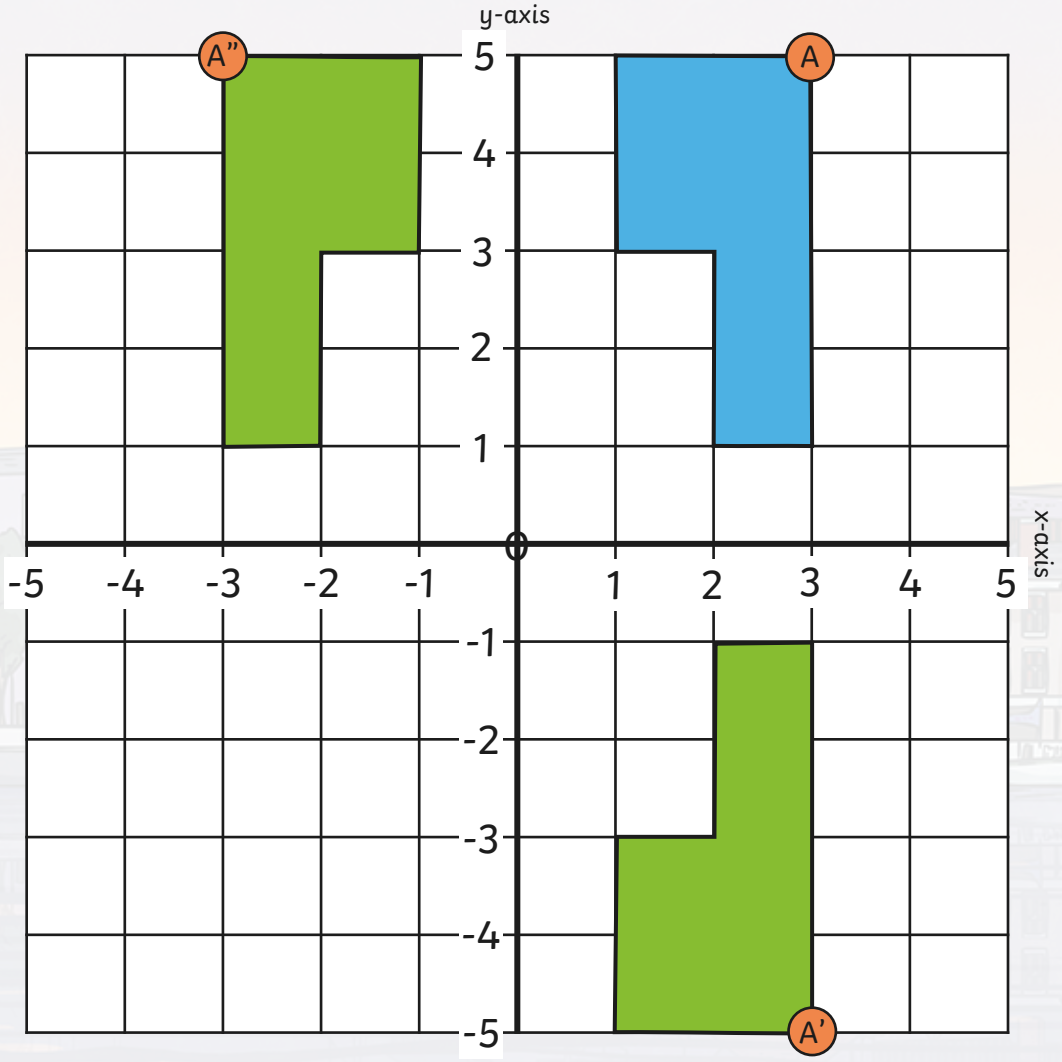
Ellie has drawn shape A onto this coordinate grid. She has labelled one of the vertices as A.

She reflects this shape in the x-axis. Give the coordinates of vertex A after the reflection.

(3,-5)



Reflections **Deepest**

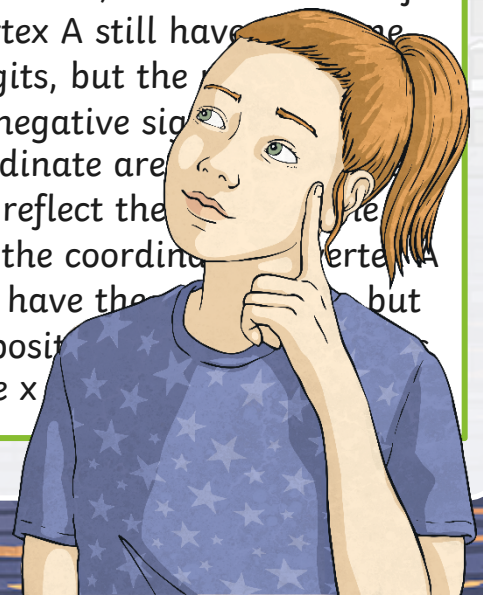


Ellie now reflects her original shape in the y-axis. Give the coordinates of point A, after the reflection?

(-3,5)

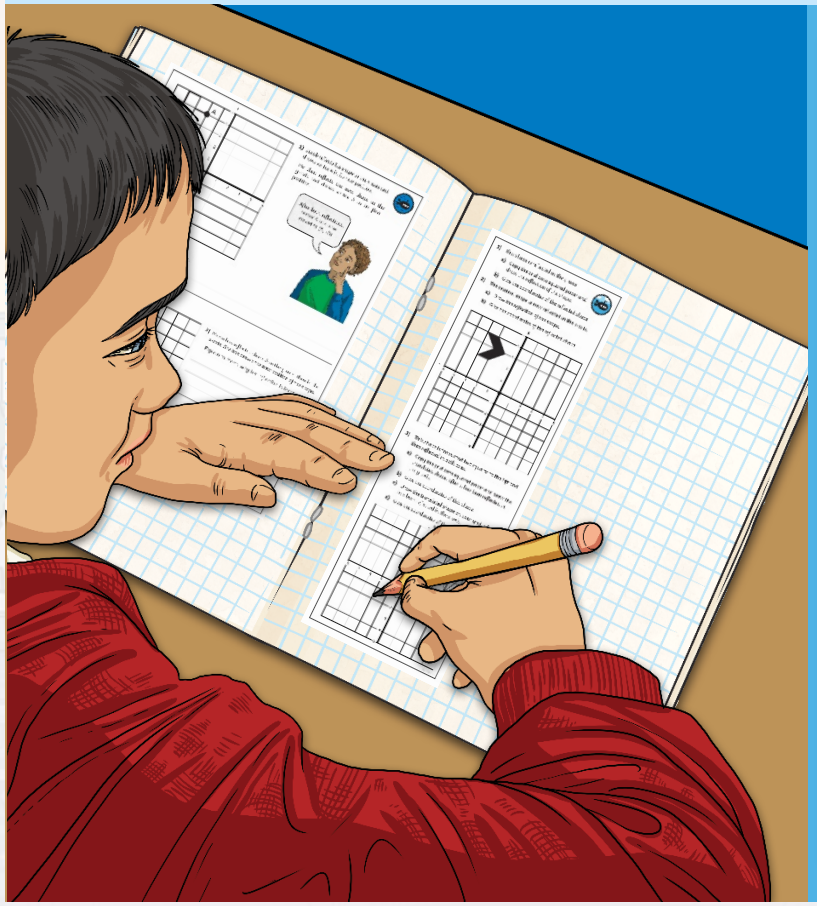
What do you notice about the coordinates of vertex A after each reflection?

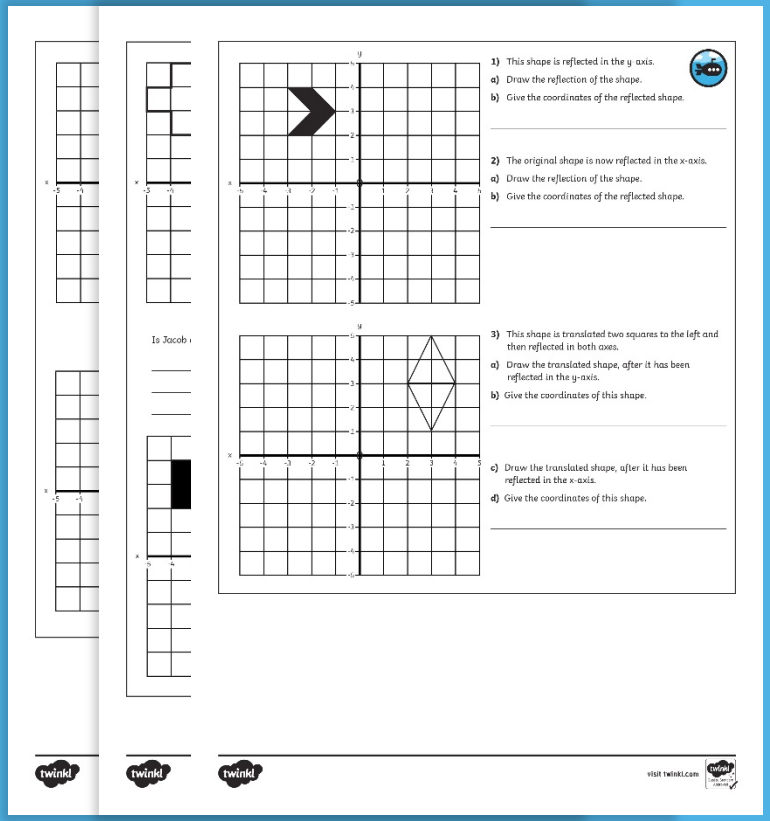
When you reflect the shape in the x-axis, the coordinates of vertex A still have the same digits, but the negative sign in the coordinate are... you reflect the ... axis, the coordinates of vertex A still have the ... but the position ... of the x ...



Reflections

Dive in by completing your own activity!





1) This shape is reflected in the y axis.
a) Draw the reflection of the shape.
b) Give the coordinates of the reflected shape.

2) The original shape is now reflected in the x-axis.
a) Draw the reflection of the shape.
b) Give the coordinates of the reflected shape.

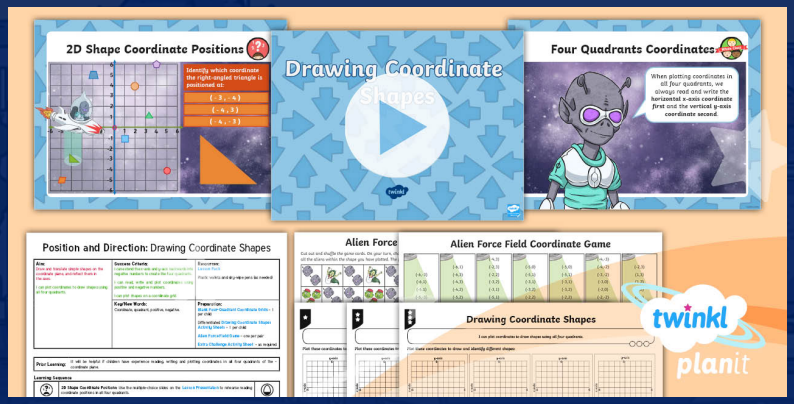
3) This shape is translated two squares to the left and then reflected in both axes.
a) Draw the translated shape, after it has been reflected in the y-axis.
b) Give the coordinates of this shape.
c) Draw the translated shape, after it has been reflected in the x-axis.
d) Give the coordinates of this shape.

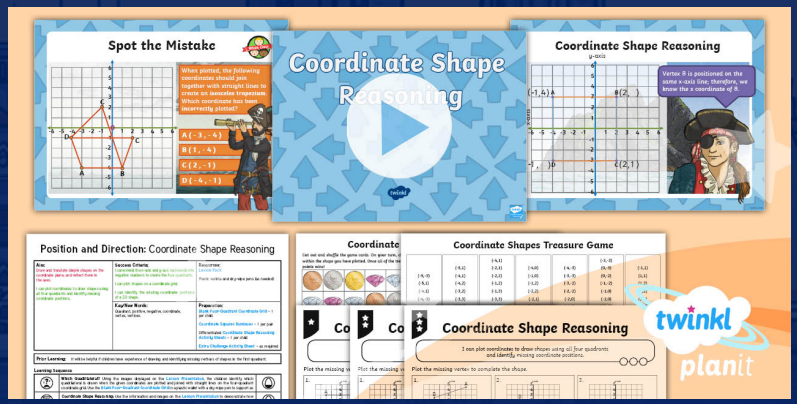
Need Planning to Complement this Resource?

National Curriculum Aim

Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

For more planning resources to support this aim, [click here](#).





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