



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.

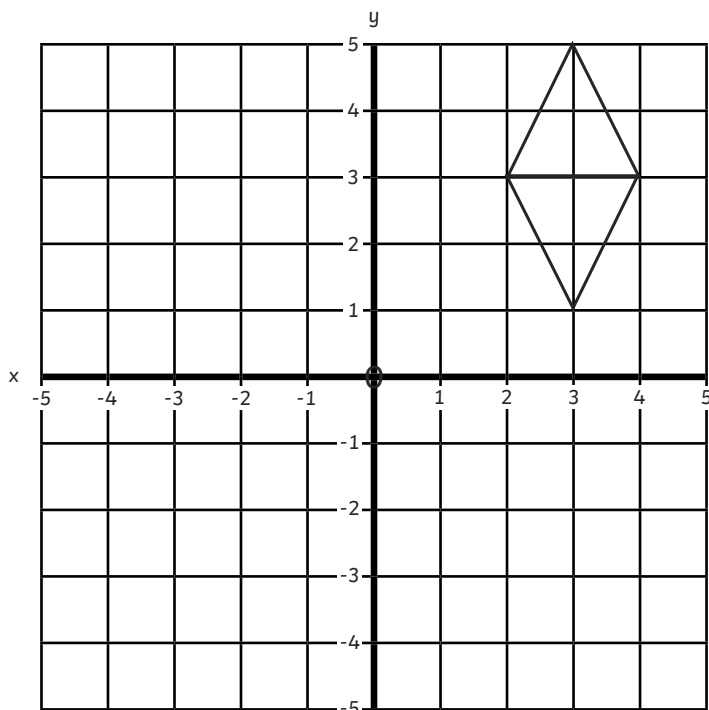
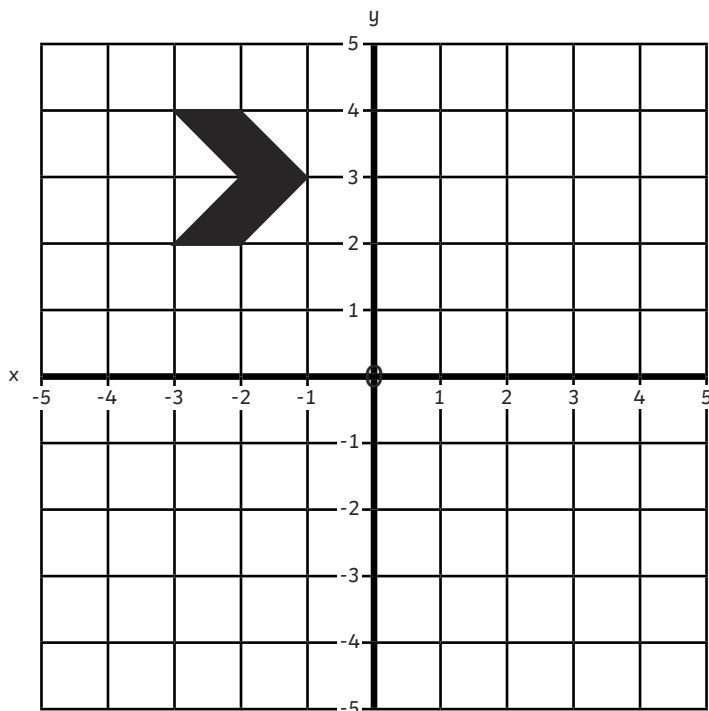
- a) Draw the reflection of the shape.
- b) Give the coordinates of the reflected shape.

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.

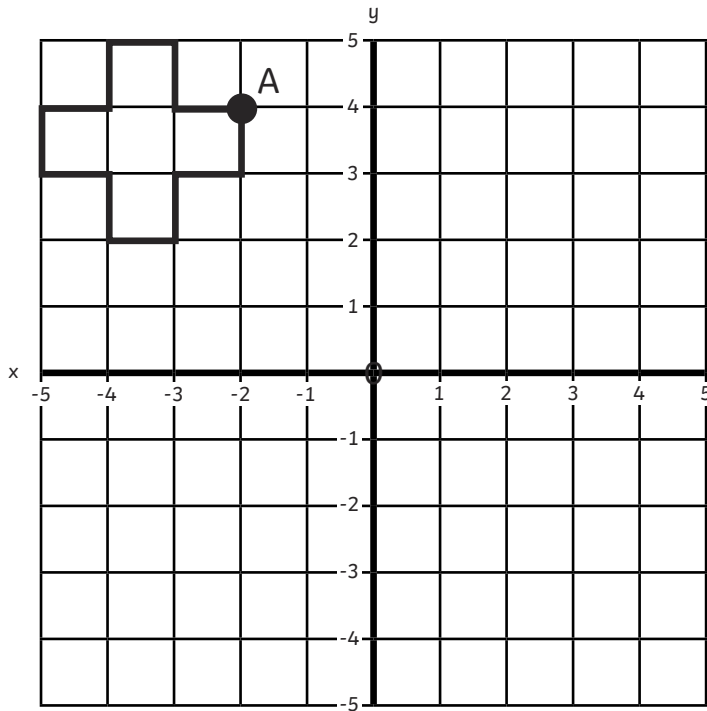




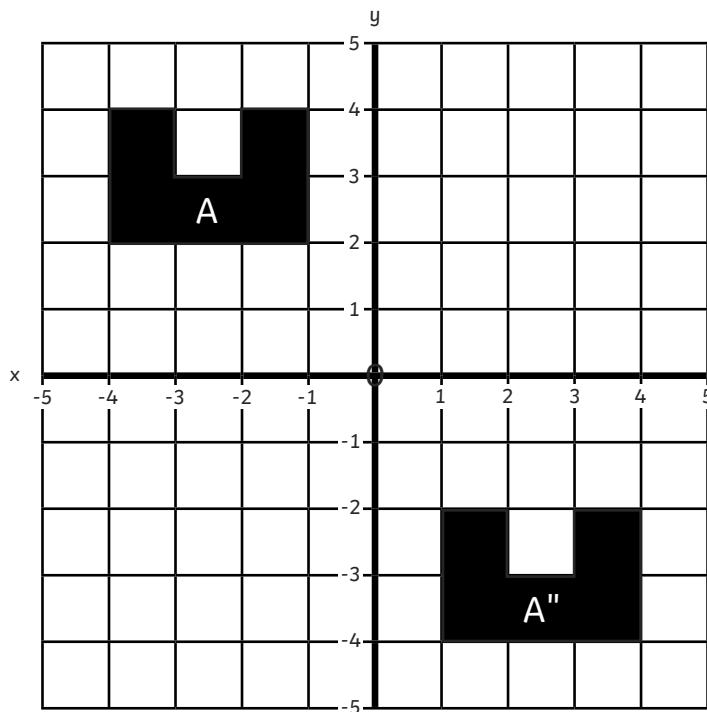
- 1) Jacob reflects his shape in the x-axis and draws vertex A in its new position.

He then reflects the new shape in the y-axis and draws vertex A in its final position.

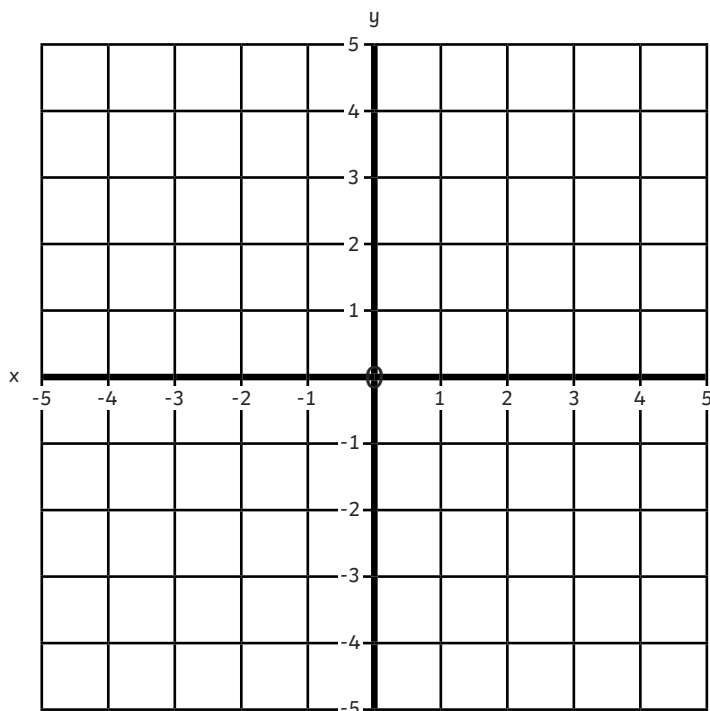
After both reflections, vertex A has now moved to (5, -3).



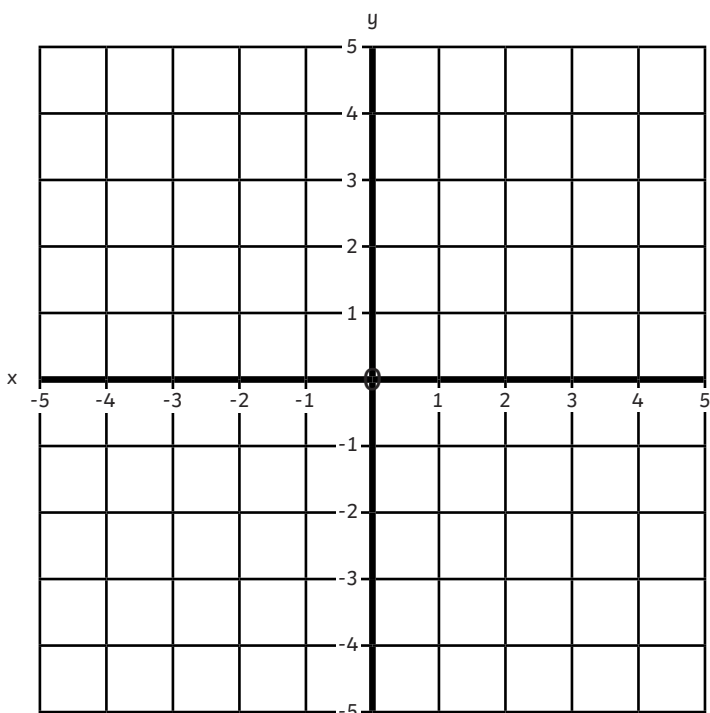
Is Jacob correct? Explain your answer.



- 2) Meeta has reflected shape A in the y-axis, then in the x-axis. She has drawn the new position of the shape. Explain to Meeta why her reflection is incorrect.



- 1)
- a) In one of the quadrants on the grid, draw a shape with between 6 and 8 vertices. Label one of the vertices as A and give its coordinates.
 - b) Reflect your shape in the x-axis and draw the reflection.
 - c) Reflect your original shape in the y-axis and draw the reflection.
 - d) Give the new coordinates of vertex A for both of your reflected shapes. Explain what you notice about the coordinates.



- 2)
- a) In one of the quadrants on the coordinate grid, draw a letter from the alphabet using only straight lines.
 - b) Reflect that letter in the y-axis, then in the x-axis.
 - c) Explain what you notice about the letter you have chosen.
 - d) Investigate which letters do not change after reflecting them in both axes.
