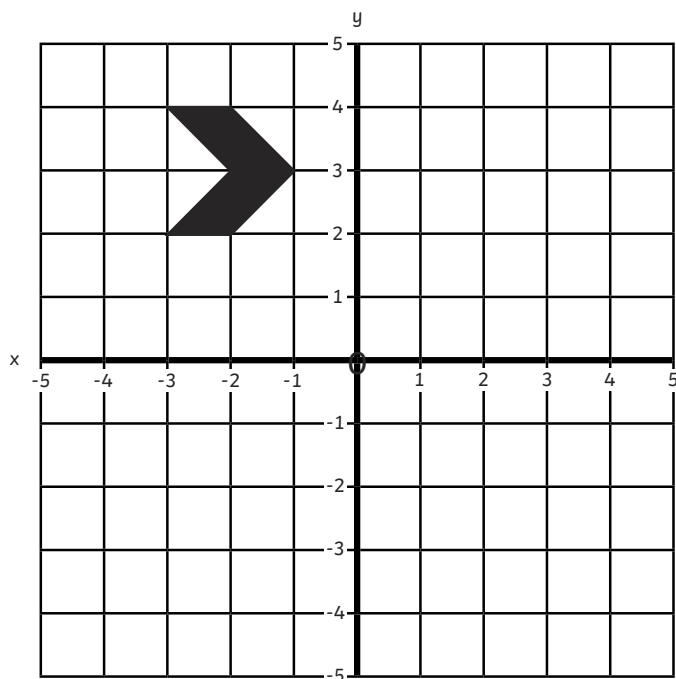


- 1) This shape is reflected in the y-axis.

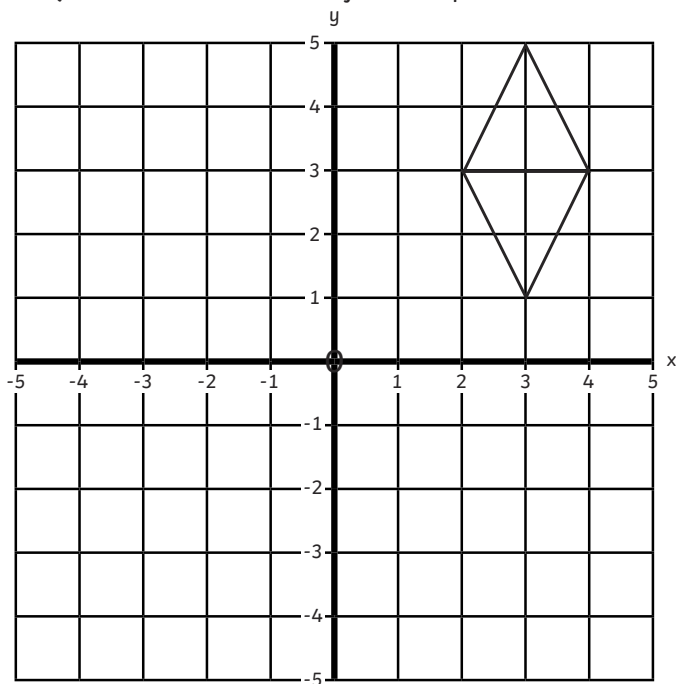


- a) Copy the grid onto squared paper and draw the reflection of the shape.
- b) Give the coordinates of the reflected shape.
- 2) The original shape is now reflected in the x-axis.
- a) Draw the reflection of the shape.
- b) Give the coordinates of the reflected shape.



- 3) This shape is translated two squares to the left and then reflected in both axes.

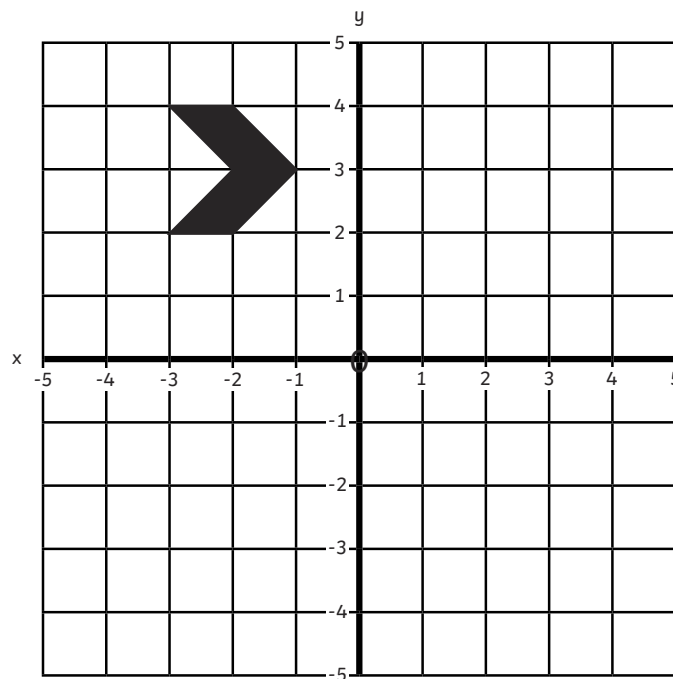
- a) Copy the grid onto squared paper and draw the translated shape. after it has been reflected in the y-axis.
- b) Give the coordinates of this shape.
- c) Draw the translated shape on your grid, after it has been reflected in the x-axis.
- d) Give the coordinates of this shape.



- 1) This shape is reflected in the y-axis.

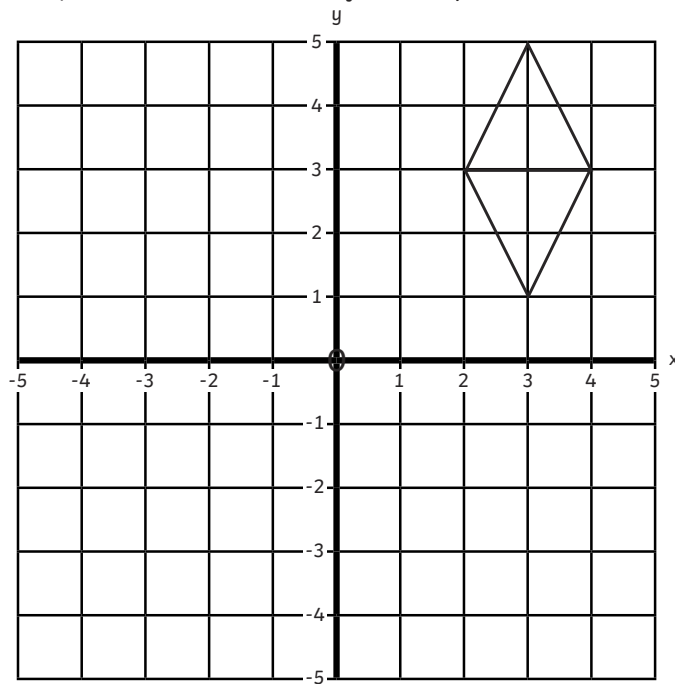


- a) Copy the grid onto squared paper and draw the reflection of the shape.
- b) Give the coordinates of the reflected shape.
- 2) The original shape is now reflected in the x-axis.
- a) Draw the reflection of the shape.
- b) Give the coordinates of the reflected shape.



- 3) This shape is translated two squares to the left and then reflected in both axes.

- a) Copy the grid onto squared paper and 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 on your grid, after it has been reflected in the x-axis.
- d) Give the coordinates of this shape.

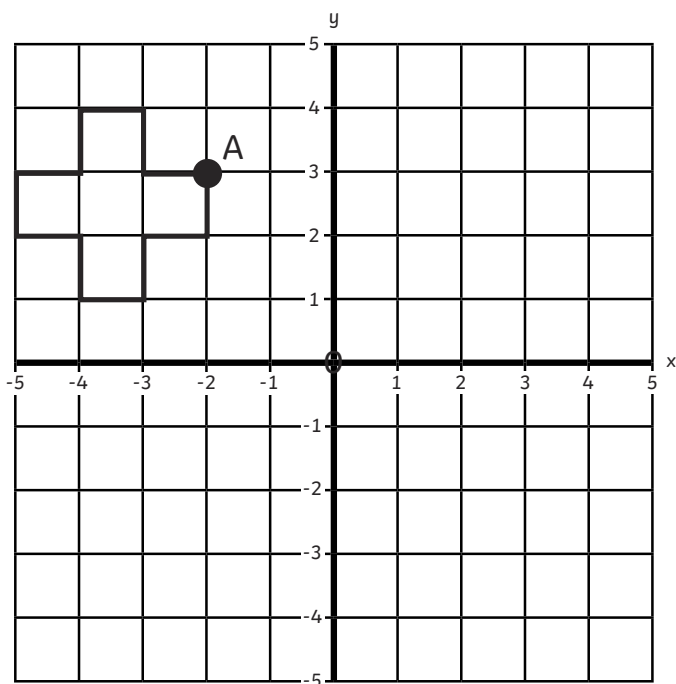


- 1) Jacob reflects his shape in the x-axis and draws vertex A in its new position.



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

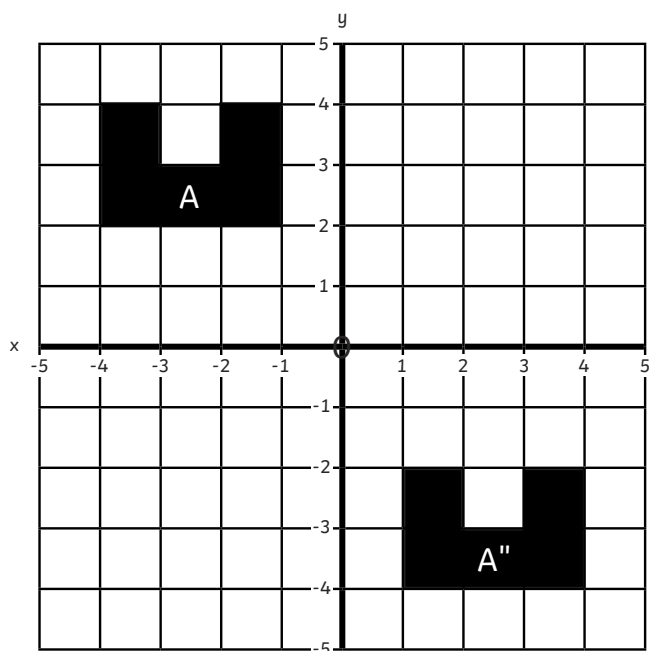
After both reflections, vertex A has now moved to (5, -3).



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.

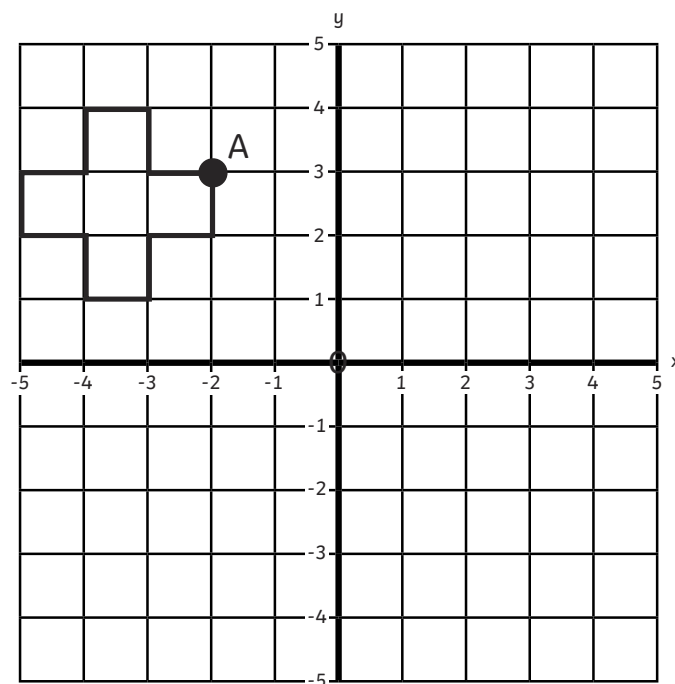


- 1) Jacob reflects his shape in the x-axis and draws vertex A in its new position.



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

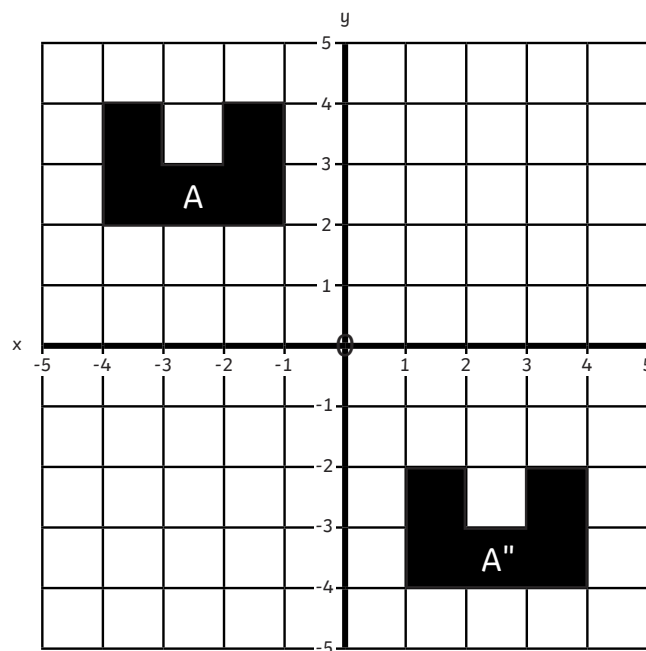
After both reflections, vertex A has now moved to (5, -3).



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.



For each of the two questions, you will need to draw a grid like the one below onto squared paper.

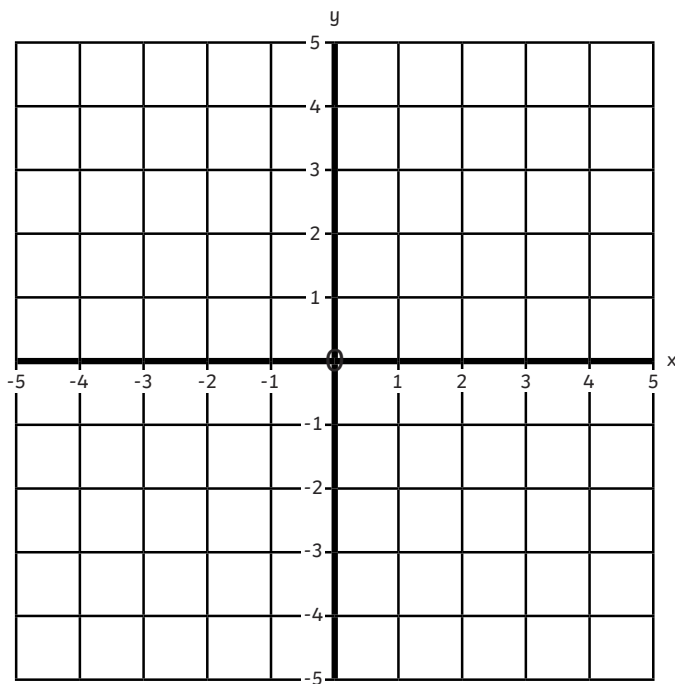


1)

- a) In one of the quadrants on your first 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 your second 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.



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For each of the two questions, you will need to draw a grid like the one below onto squared paper.

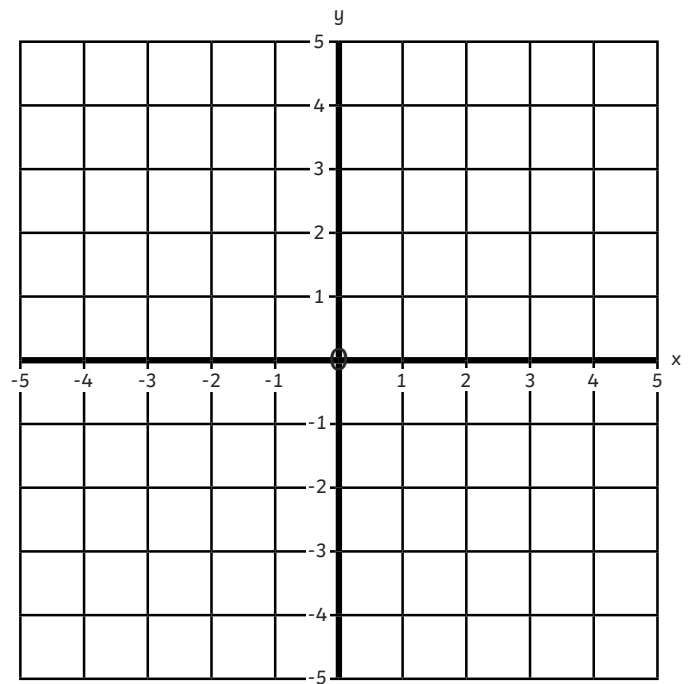


1)

- a) In one of the quadrants on your first 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 your second 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.



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