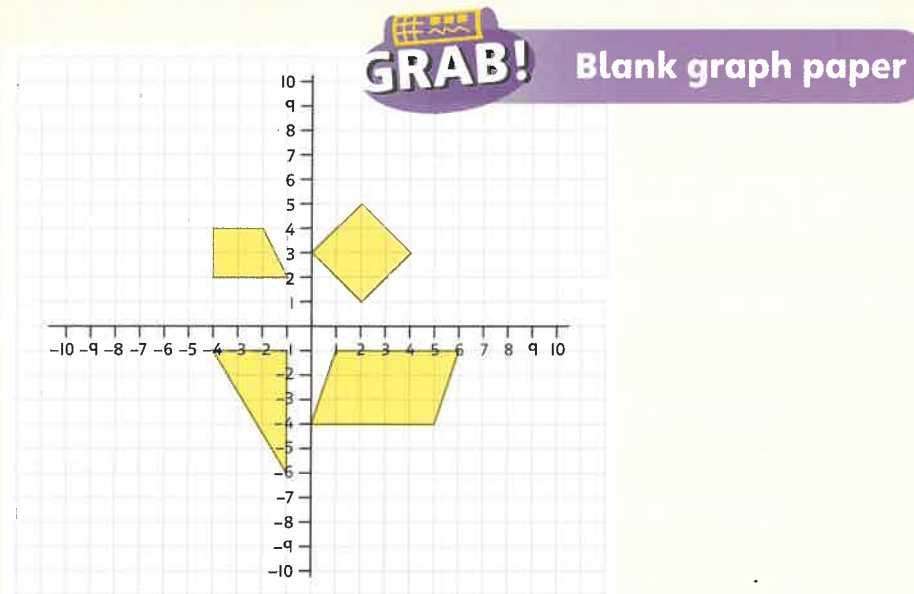


Look at the grid and follow the instructions.



- 1 Copy each polygon onto your own four-quadrant graph.
- 2 Write the coordinates of the vertices.
- 3 Add or subtract six to the x - or y -coordinates to move each shape into a new quadrant. Write the new coordinates.

Answer these questions about coordinates.

- 4 A rectangle has vertices $(3, 2)$, $(7, 2)$ and $(3, 8)$. Write the missing coordinate.
- 5 A right-angled triangle has vertices $(1, 2)$, $(6, 2)$ and $(\square, 6)$. What are the two possible x -coordinates for the third point?
- 6 The vertices of a square are: $(1, -4)$, $(6, -4)$, $(6, -9)$ and (a, b) . Find the value of a and b .
- 7 A trapezium has vertices: $(-8, 3)$, $(-1, 3)$, $(-7, 7)$ and $(-2, m)$. Find a value for m .



After one horizontal translation, the coordinates of a triangle are $(5, -1)$, $(5, -6)$ and $(8, -6)$. Before translation, one of its sides ran along the y -axis. What were the coordinates of its vertices then?

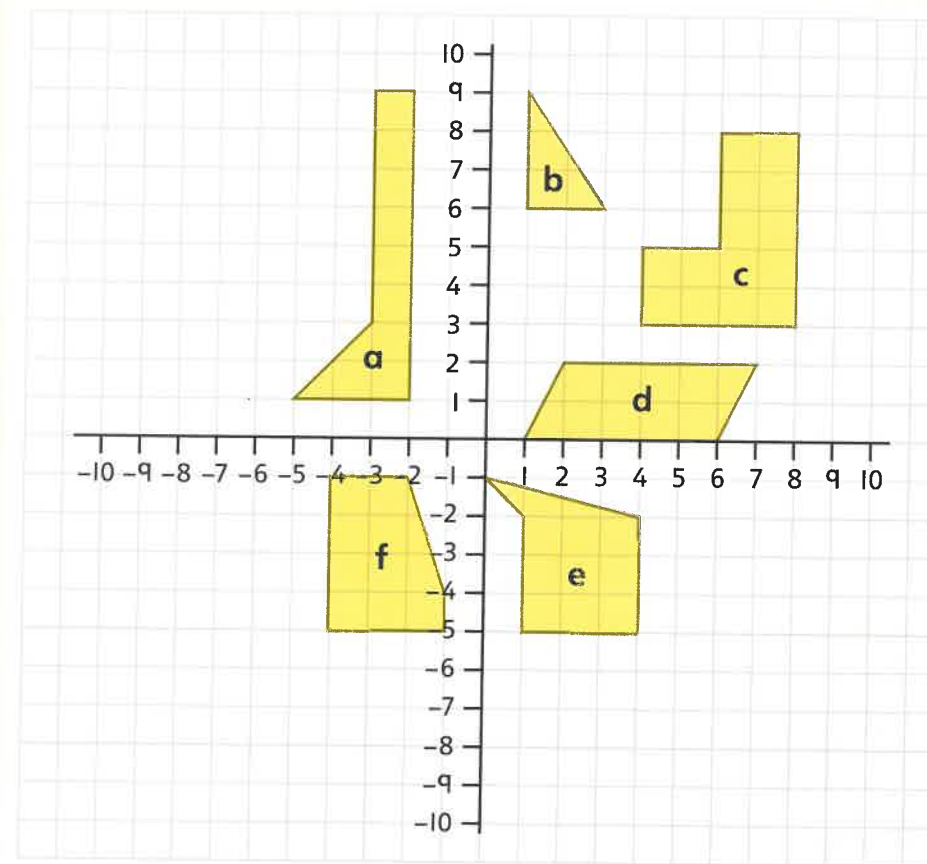
I am confident with reading coordinates and translating shapes.

Look at the shapes on this grid. Start with shape a and follow the instructions.



- 1 List the coordinates of each vertex of the polygon.
- 2 Reflect the polygon in the y -axis. Reflect the new shape in the x -axis.
- 3 Compare the coordinates of the final shape with the first shape. Which quadrants has it moved from and to?

Draw these polygons on your own grid.



Write some rules to explain what happens if you change the signs of the numbers in each pair of coordinates representing the vertices of a polygon.

I am confident with reflecting shapes.