Coordinates translations

Position and direction

Solving mathematical problems

Challenge

You will need:
- four quadrant coordinates grids or squared paper
- ruler

Use either a four quadrant coordinates grid with vertical and horizontal axes marked to at least ± 6, or use squared paper to draw and label a four quadrant coordinates grid.

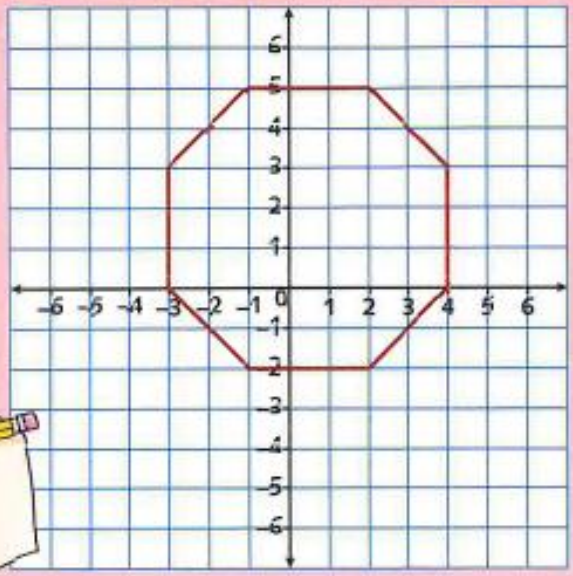
Draw a polygon so that it has at least one vertex in each of the four quadrants of the grid.

Write down the coordinates of your shape.

Reverse the signs of the coordinates.

Now draw a shape using these coordinates.

Investigate doing this for other polygons.



(2, 5), (−1, 5), (−3, 3), (−3, 0), (−1, −2), (2, −2), (4, 0), (4, 3), (−2, −5), (1, −5), (3, −3), (3, 0), (1,

Think about ...

Make sure that you carefully check the coordinates of the vertices for your polygons.

Can you predict where your translated shape will appear on the grid?

What if?

Using only the digits 2, 3, 5 and 6, make different coordinates, for example: (−3, 5), (−2, −3), (2, 3), (6, −5).

Using these coordinates, what shapes can you make?