

Reflecting shapes using coordinates

Reflect a shape using coordinates in the first quadrant

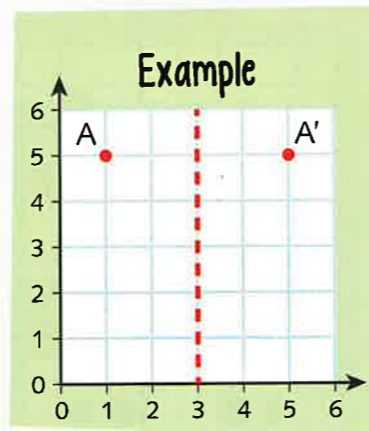
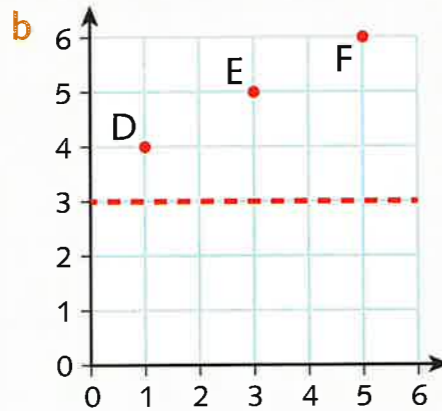
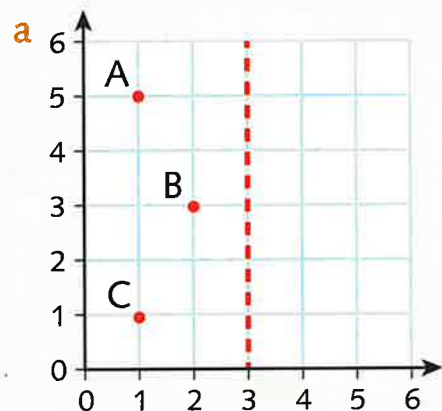


1 Use Resource 23: 6 × 6 coordinate grids.

- For each diagram, copy the line of symmetry and the labelled points onto a 6 × 6 grid.
- Reflect each point in the line of symmetry.
- Write the letter of the image of each point, as shown in the Example.

You will need:

- Resource 23: 6 × 6 coordinate grids



2 Copy the table. Write the coordinates of each pair of points in turn, starting with A and A' and ending with F and F'.

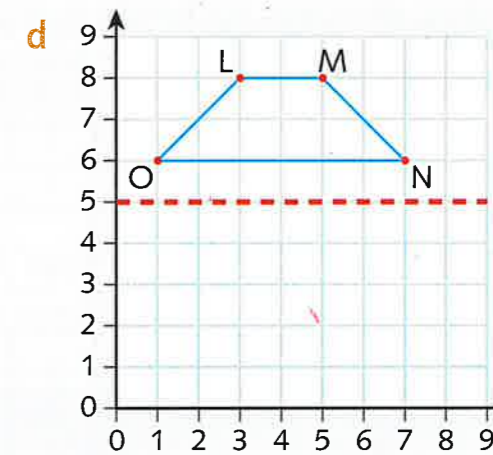
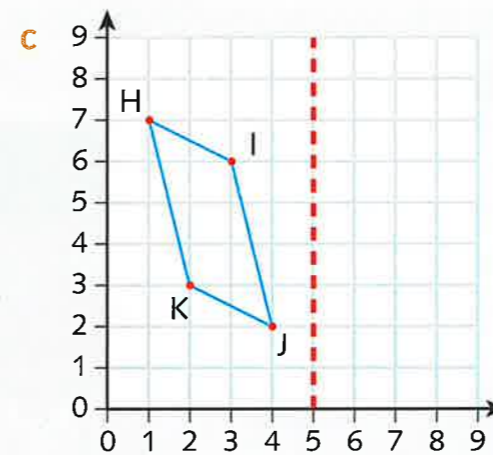
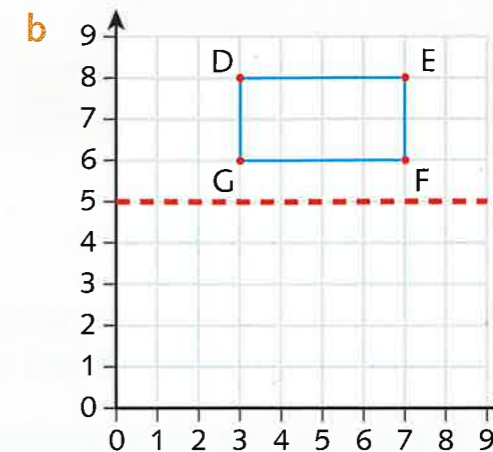
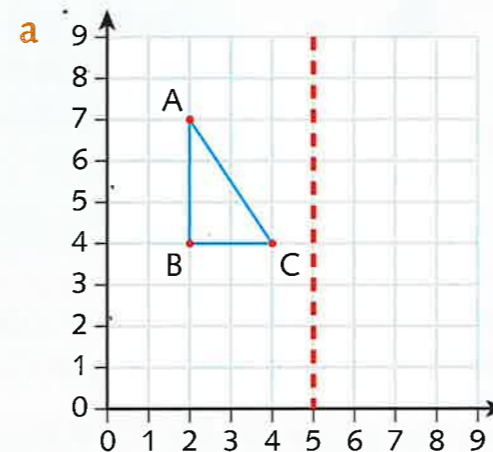
| Point | Coordinates | Point | Coordinates |
|-------|-------------|-------|-------------|
| A | (1, 5) | A' | (5, 5) |
| B | | B' | |
| C | | C' | |
| D | | D' | |
| E | | E' | |
| F | | F' | |

1 Use Resource 24: 9 × 9 coordinate grids.

- For each diagram, copy the line of symmetry and the shape onto a 9 × 9 grid.
- Reflect each shape in the axis of symmetry.
- Write the letter of the image of each point, as shown in the Example above.

You will need:

- Resource 24: 9 × 9 coordinate grids
- ruler

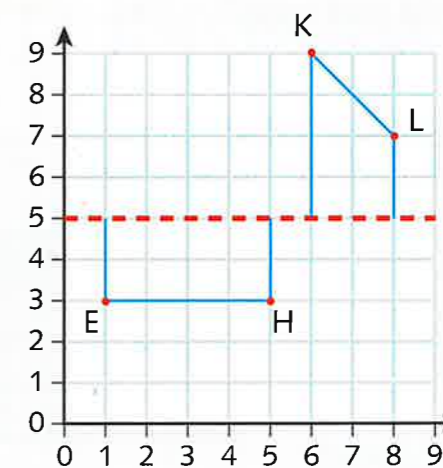


2 Make a table for all the points like the one shown in Challenge 1. For each grid, write the coordinates of each point and of its image under reflection.

Challenge 3

Use Resource 24: 9 × 9 coordinate grids. Copy the line of symmetry and the shapes below onto a 9 × 9 coordinate grid.

- a Complete the square EFGH and write the coordinates of F and G.
- b Complete the isosceles trapezium KLMN and write the coordinates of M and N.



You will need:

- Resource 24: 9 × 9 coordinate grids
- ruler

