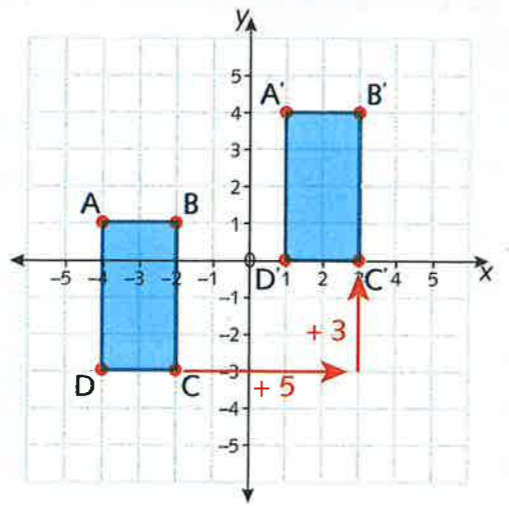


Using coordinates to translate shapes (2)

Use coordinates to translate shapes and predict missing coordinates



The rectangle ABCD has been translated 5 squares to the right and 3 squares up. We can write this as: $x + 5, y + 3$.



For both rectangles write the coordinates for each vertex.

- A (-4, 1) → A' (1,)
- B (,) → B' (,)
- C (,) → C' (,)
- D (,) → D' (,)

1 Copy the square EFGH onto a grid on Resource 12: 4-quadrant coordinate grids.

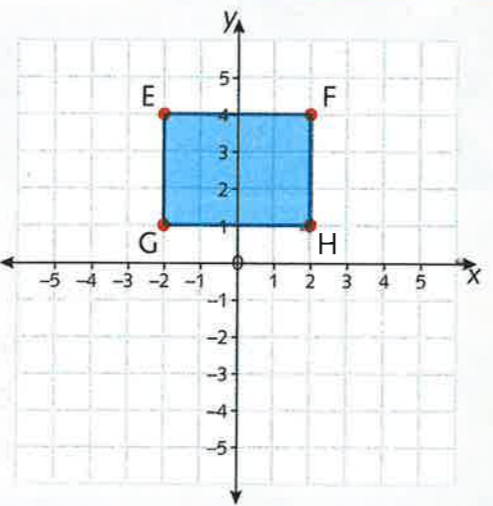
- a Draw where the square will be after the translation $x + 4$.
- b Write the coordinates for each vertex of both squares.

- E (,) → E' (,)
- F (,) → F' (,)
- G (,) → G' (,)
- H (,) → H' (,)

c On the same grid draw where the square will be after the translation $y - 5$. Write the coordinates for each vertex of both squares as in Question b above.

You will need:

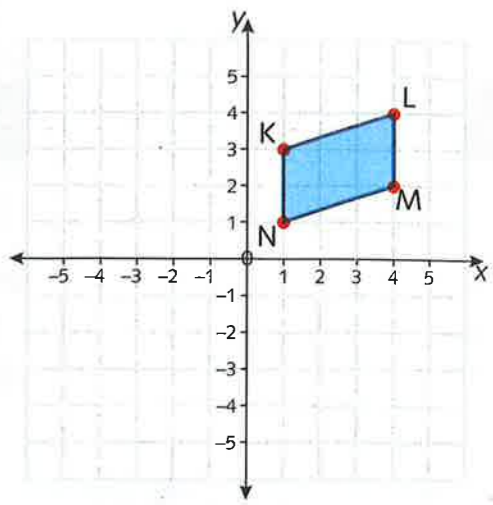
- Resource 12: 4-quadrant coordinate grids
- ruler



2 Copy shape KLMN onto a grid on Resource 12: 4-quadrant coordinate grids.

- a Draw where the shape will be after the translation $x - 5, y - 3$.
- b Write the coordinates for each vertex of both shapes.

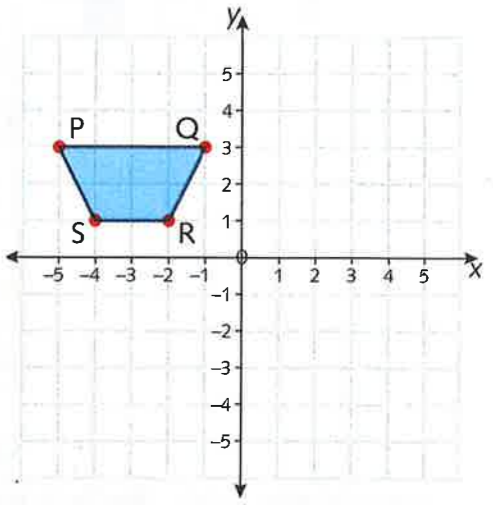
- K (,) → K' (,)
- L (,) → L' (,)
- M (,) → M' (,)
- N (,) → N' (,)



3 Copy shape PQRS onto a grid on Resource 12: 4-quadrant coordinate grids.

- a Draw where the shape will be after the translation $x + 6, y - 4$.
- b Write the coordinates for the vertices of both shapes.

- P (,) → P' (,)
- Q (,) → Q' (,)
- R (,) → R' (,)
- S (,) → S' (,)



Challenge 3

Use the letters x and y to describe how each shape below has been translated.

