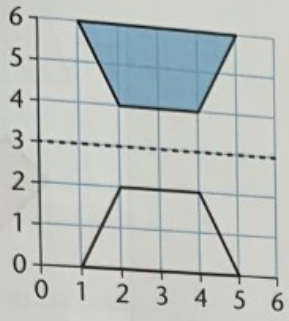
REFLECTIONS 1

TARGET To reflect a shape on the first quadrant of the co-ordinate grid.

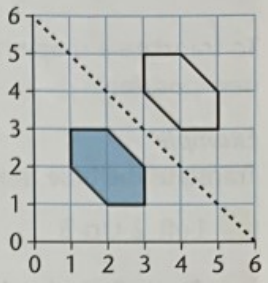
Example

1 The blue trapezium is reflected in a mirror line (0, 3) to (6, 3).



2 Reflect the blue hexagon in the mirror line. Give the co-ordinates of the reflection.

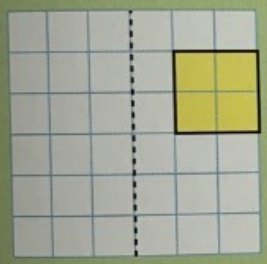
Answer (3, 4) (3, 5) (4, 5) (5, 4) (5, 3) (4, 3)



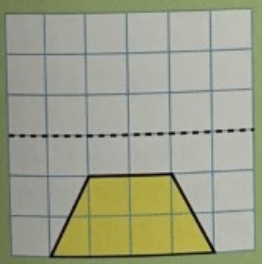
A

Copy the grid, the shape and the mirror line. Sketch the reflection.

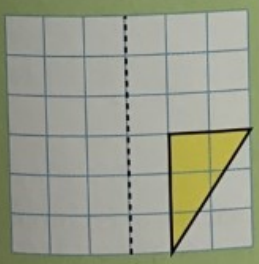
1



2



3

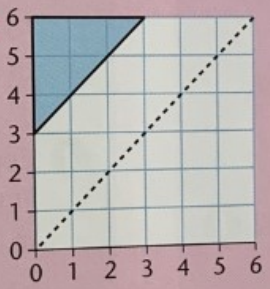


4

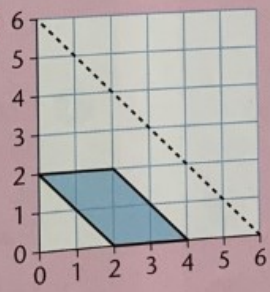
B

Copy the grid, the shape and the mirror line. Sketch the reflection.

1



2

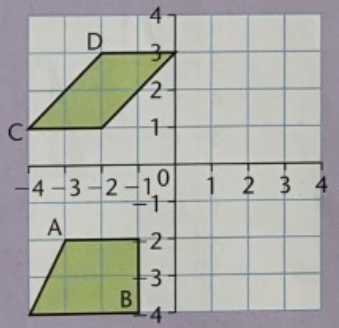


Plot these co-ordinates on a 6×6 grid and join them up in the order given to form a shape. Draw the mirror line and sketch the reflection.

3 (0, 0) (2, 2) (5, 2) (4, 0) (0, 0)
Mirror line (0, 3) to (6, 3)

4 (4, 3) (4, 6) (6, 6) (6, 5) (4, 3)
Mirror line (3, 0) to (3, 6)

C



1 Copy the above grid and the trapezium. Sketch the reflection:
- **a)** in the x axis
- **b)** in the y axis
- **c)** in a mirror line $(-4, 4)$ to $(4, -4)$

2 Copy the above grid and the parallelogram. Sketch the reflection:
- **a)** in the x axis
- **b)** in the y axis
- **c)** in a mirror line $(-4, -4)$ to $(4, 4)$

3 For each of the points A–D in the above shapes give the co-ordinates of its position:
- **a)** in the original shape
- **b)** in each reflection.