Planner

Reflection

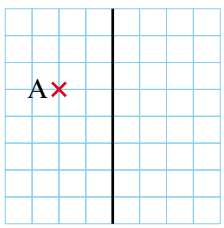
- Reflecting points and lines in a variety of mirror lines

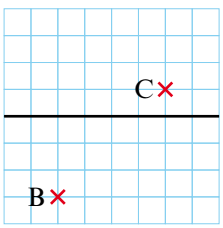
Keywords

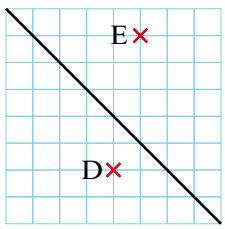
You should know

explanation 1 — online

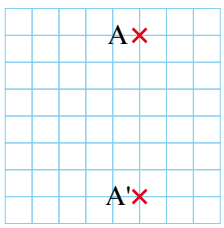
1 Copy these diagrams and show the image of each labelled point after reflection in the black mirror lines. Label the images A', B', C', D' and E'.

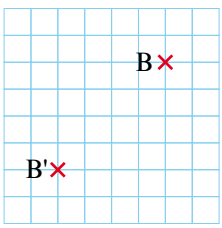


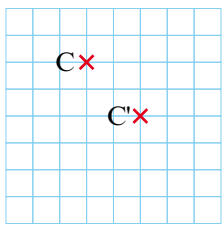




2 Copy these diagrams and draw a mirror line in the correct position for each one.

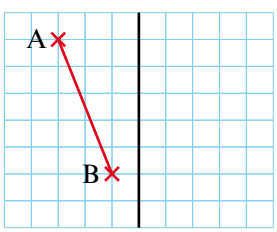


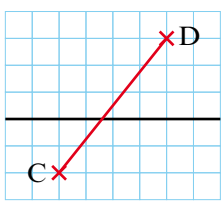


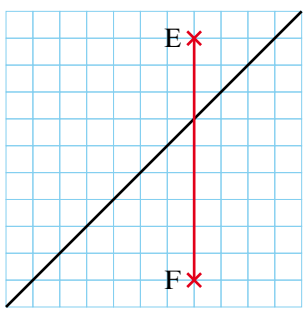


explanation 2 — online

3 Copy the diagrams and reflect each labelled line in the black mirror line. Label the end points of each reflection.

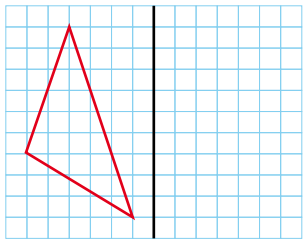




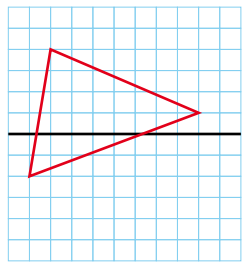


4 Copy these diagrams and reflect each shape in the black mirror line.

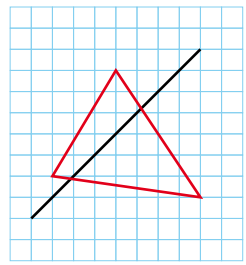
a



b



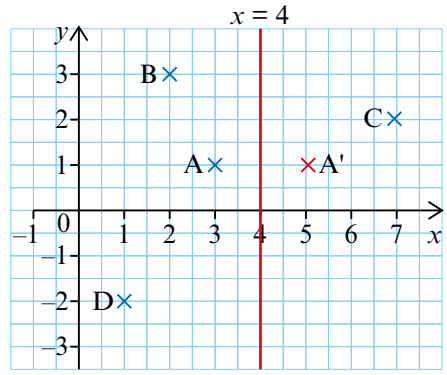
c



explanation 3

5 The image of A(3, 1) after reflection in the line $x = 4$ is A'(5, 1).

Write down the image of each of the other labelled points after reflection in $x = 4$.



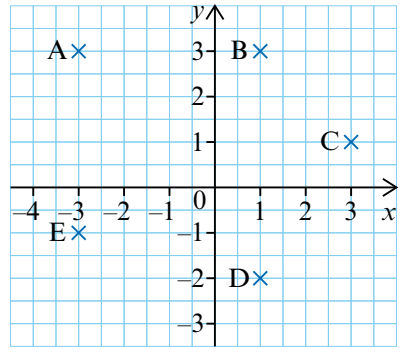
6 Write down the equation of the mirror line for each of the following.

a A → B

b B → C

c B → D

d B → E



7 Write down the coordinates of a point that maps to itself after reflection in $x = 2$.

8 Write down the coordinates of the point that (3, −1) maps to after reflection in each of these lines.

a $x = 5$ **b** $x = -1$ **c** $y = -1$ **d** $y = 4$

e $y = x$ **f** $y = 2 - x$ **g** $y = -x$ **h** $y = 4 - x$