

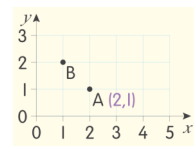
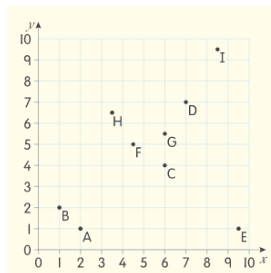
## Maths - Year 4

### Geometry 4: Reading and plotting positions using coordinates

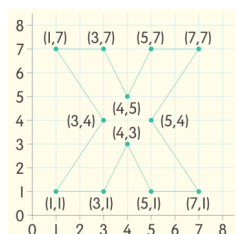
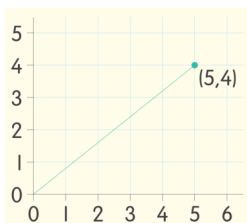
| Key Vocabulary   |   | Mathematical Skills  |
|------------------|---|--|
| Grid             | A set of lines used to help us accurately draw graphs etc.  | <ul style="list-style-type: none"> <li>- Draw and label coordinate axes correctly.</li> <li>- Identify the point where the axes cross as the origin (0,0).</li> <li>- Identify the coordinates of a point, and say and write them with the x-coordinate first.</li> <li>- Plot a point from given coordinates.</li> <li>- Record a translation between points on a coordinate grid using the x- and y-coordinates.</li> <li>- Describe the position of the vertices of a polygon using coordinates.</li> <li>- Identify missing vertices of a given polygon shown on a coordinate grid.</li> <li>- Mark a symmetrical point on a coordinate grid, given a line of symmetry and an existing point.</li> </ul> |
| Gridlines        | A series of numbered horizontal and perpendicular lines that divide a map into squares to form a grid by means of which any point may be located by a system of rectangular coordinates |  |
| Grid reference   | Using rows and columns to describe a position on a grid, e.g. C4.   |  |
| Coordinates      | Pairs of numbers describing a position on a grid, e.g. (2,3).   |  |
| Axis/axes        | The lines that frame a coordinate grid.   |  |
| x-axis           | The horizontal line which forms part of the frame of a coordinate grid.   |  |
| y-axis           | The vertical line which forms part of the frame of a coordinate grid.   |  |
| x-direction      | The horizontal direction on a graph.  |  |
| y-direction      | The vertical direction on a graph.  |  |
| Perpendicular    | Lines that are at right angles to each other.   |  |
| Parallel         | Lines that remain the same distance apart and never touch.  |  |
| Vertex/vertices  | A point where two sides meet in a flat shape, or a point where three or more edges meet in a 3D shape.  |  |
| Line of symmetry | A line that divides a symmetrical object in half.   |  |
| Origin           | Point where the x-axis and y-axis intersect (0,0).  |  |
| Translation      | A transformation involving sliding a shape or object to a   |  |

### Mathematical Methods

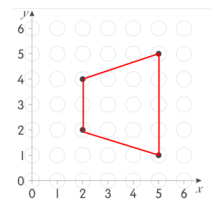
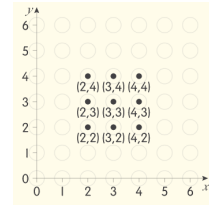
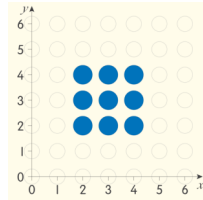
- Identifying coordinates and plotting points on a grid.



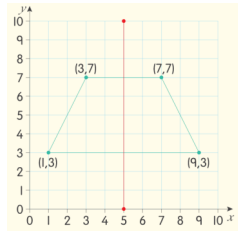
- Describing, drawing and using movement on a coordinate grid.



- Plotting and drawing shapes on a coordinate grid.

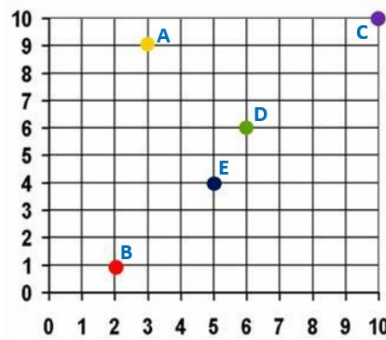


- Symmetry and coordinates.

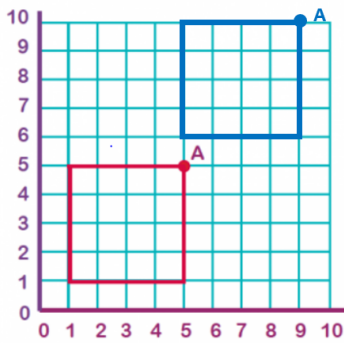


### Can you..?

- List the coordinates for each letter.



- Describe the movement of the shape and give the coordinates of A before and after the move.



- Reflect the shape in the vertical line of symmetry and write the coordinates for the new vertices.

