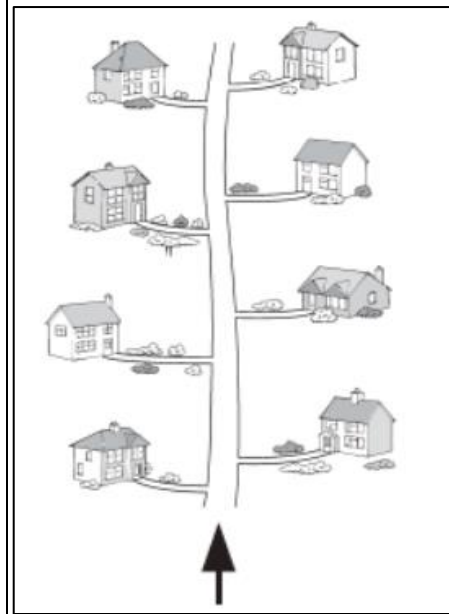


Overview



In our unit on position and direction we learn to:

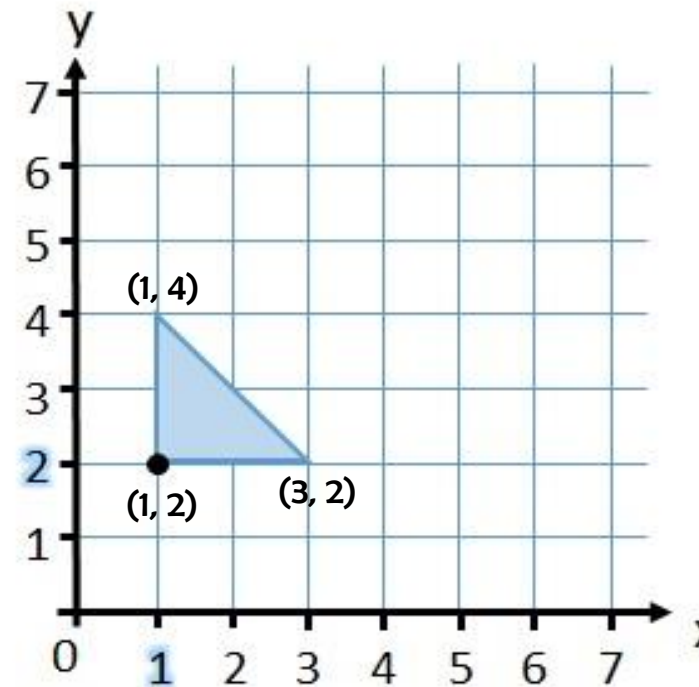
- Describe Position
- Draw on a Grid
- Move on a Grid
- Describe Movement on a Grid

Position means the location of something – where it is.

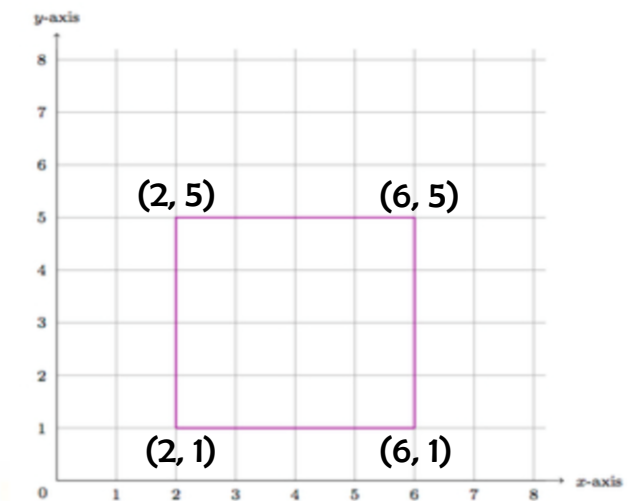
Direction means the path along which something moves.

Position and direction is useful learning because it helps us to describe where we are, where things in the world are, and to follow directions to reach different places.

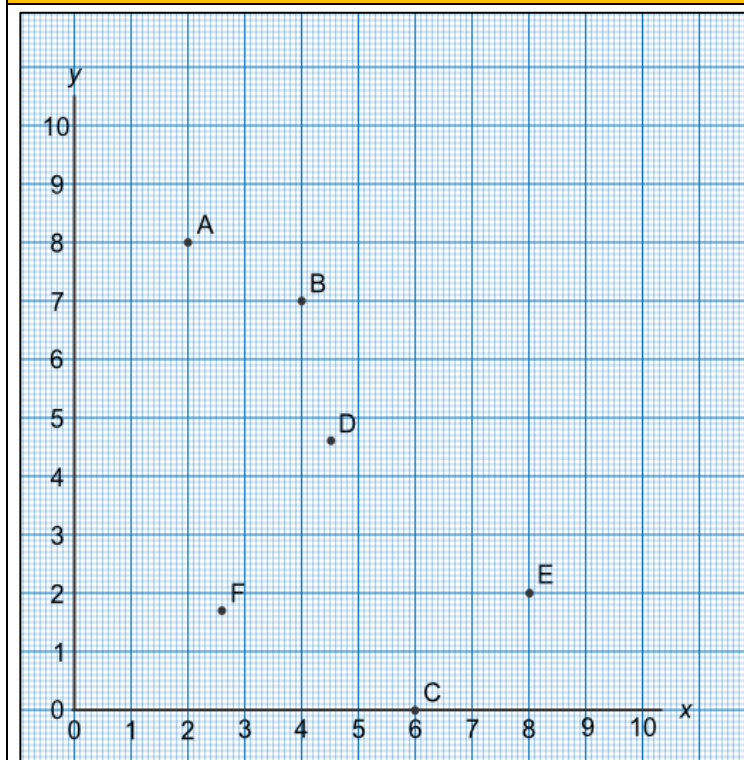
Plotting 2-D Shapes



2-D shapes can be plotted by representing each vertex (corner) as a coordinate on a 2-D grid.



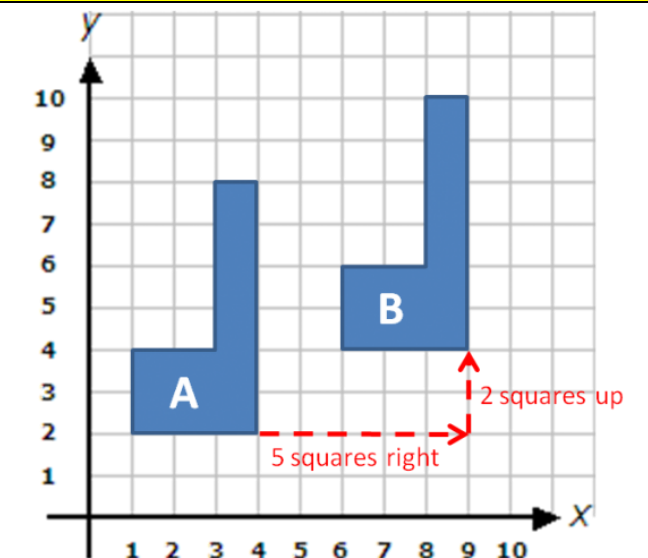
Position on a Grid – First Quadrant



- The numbers across the horizontal line are on the **x-axis**.
- The numbers up and down the vertical line are on the **y-axis**.
- Coordinates** are a good way for us to find the position of something on a map or a grid.
- We read the number on the x-axis before the y-axis (remember 'along the corridor and up the stairs').
- Coordinates are written in **brackets** and are **separated by a comma**.
- e.g. The coordinates of A are (2, 8). The coordinates of B are (4, 7).

Translation

- Translation (in maths) means moving objects on a grid.
- We can produce accurate translations by applying the same movement to all vertices.
- For example, in this translation, all vertices have been...
 - ...moved 5 squares right along x-axis, and...
 - ...moved 2 squares up the y-axis.
- This helps to ensure the shape stays the same size and proportion.



Key Vocabulary

Coordinate

Grid

Quadrant

x-axis

y-axis

Translation

Vertex

Vertices