

## Key Vocabulary

coordinate

quadrant

x-axis

y-axis

reflection

mirror line

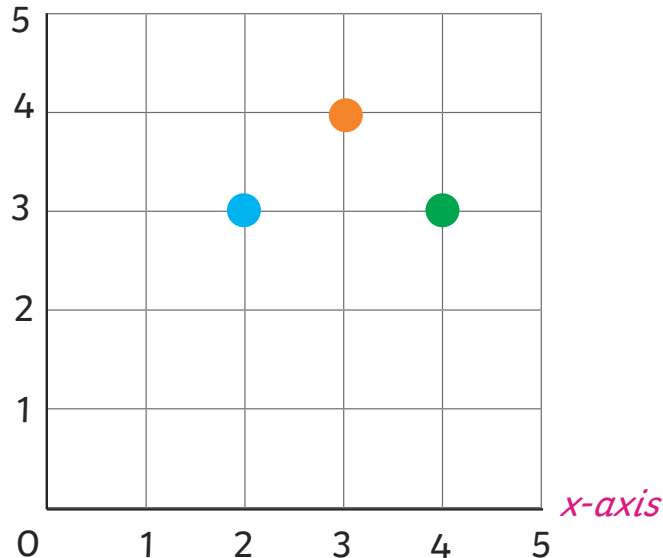
translation

horizontal

vertical

## Coordinates

*y-axis*



We use coordinates to locate positions on a map or grid.

The numbers across the horizontal line of the grid are on the **x-axis**.

The numbers on the vertical line of the grid are on the **y-axis**.

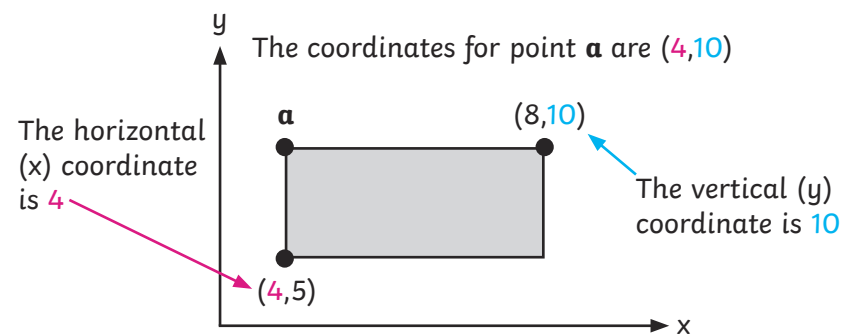
We always read or write the number on the x-axis before the y-axis.

The x and y positions are written in brackets with a comma.

The coordinate of the orange spot is **(3, 4)**.

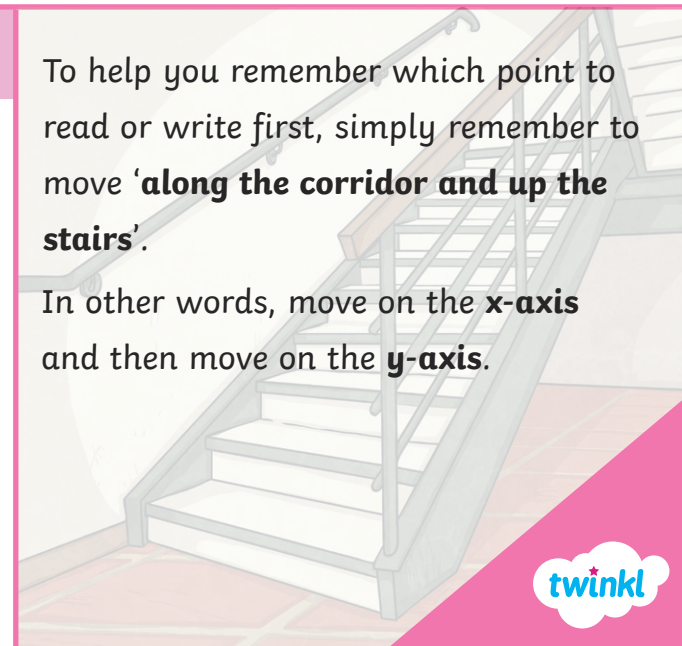
## Problem-Solving with Coordinates

Point **a** is in the same position along the x-axis as (4,5) and in the same position on the y-axis as (8,10).



To help you remember which point to read or write first, simply remember to move '**along the corridor and up the stairs**'.

In other words, move on the **x-axis** and then move on the **y-axis**.



# Position and Direction

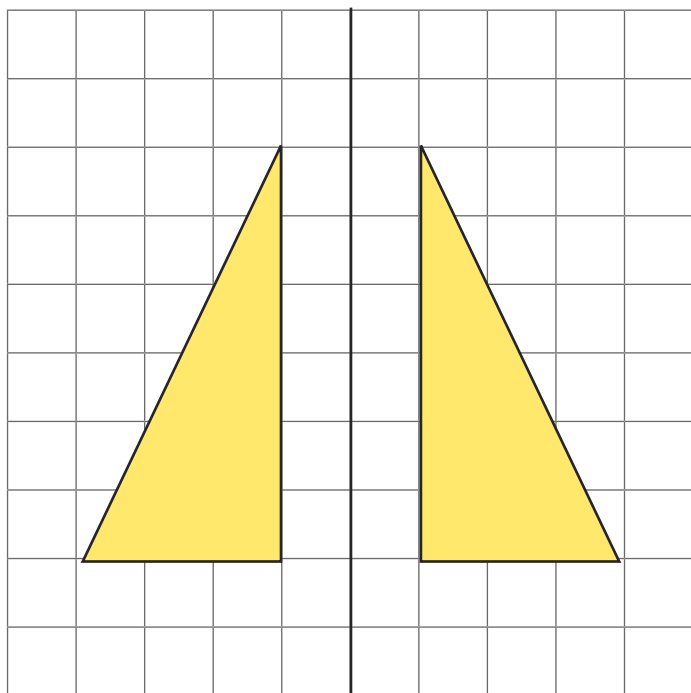
## Reflection

A shape is reflected when it is flipped over a mirror line.

The reflected image is congruent to the original.

This means that the measurements of the sides and angles have not changed.

Each point of the reflected shape is the same distance from the mirror line as the original shape.



# Knowledge Organiser

## Translation

In maths, translation means moving an object on a grid.

The object is moved without changing the size, turning or reflecting it.

When translating an object on a grid, it can move up or down, left or right.

