

SUBJECT: **COORDINATES**

KEY-WORDS: x-axis, y-axis, grid, quadrant

LINK-WORDS: Dimensions, plotting

NOTES

Coordinates are merely a way of labelling a point (or points) in a given space. Here, we will deal with them in two dimensions (flat), but they are the same in 3-D (or even more if you can imagine them!).

They are a way of labelling a point according to its position on a back-ground grid. This grid is made up of two axes – lines that cross at 90° to each other at a point called the **origin**. This point is where both axes are given a value of 0, and the axes then move out in four directions at a regular scale. The horizontal axis is usually called the x-axis, and the vertical one is called the y-axis. Using these, any point on the plane can be labelled according to how far away from the origin it is along both axes.

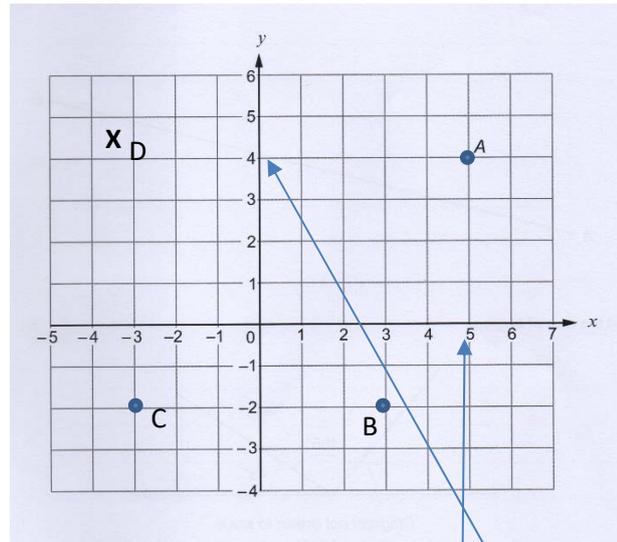
Coordinates are ALWAYS noted as two numbers separated by a comma within brackets - (x,y).

The x-value is always first!

The grid in 2-D can be broken into 4 quadrants – depending on whether the values are positive, negative or one of each.

[This is SIMILAR to coordinates with maps in geography, but not quite the same – see separate NIFty for those!]

EXAMPLE



The point A would have coordinates (5,4).

Similarly:

B – (3,-2) and C – (-3,-2)

They don't have to be whole numbers, D – (-3.5, 4.5)

DOs

Label the point with a capital letter next to a dot, or even better a cross – as in point D above.

Make sure the x-value always comes first – (x,y)

DON'Ts

Don't use the letter as the point, it's not accurate enough.

Don't mix up the axes – x is before y in the alphabet, so x is the first value in the brackets.

RELEVANT SUBJECTS

Plotting lines / graphs in science

EXAMPLES and LINKS