# Plotting Points on a Graph: Revision

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A graph gives a visual representation that is often more meaningful than just looking at numbers. This worksheet is intended to revise plotting ordered pairs on an $x - y$ graph.

Points to remember when making a graph:

1. First decide on a scale. Look at the biggest and smallest values of $x$ and $y$ (i.e. the first and second numbers of the ordered pairs) and decide on what scale you need to be able to fit all the values on the graph. But choose the scale to make the graph nice and large ... no postage stamp sized graphs!

2. Draw and label the axes. (Graphs should usually be done in pencil, so make sure you always bring a pencil to a maths class.)

3. Label the graph. A label is almost always required, even if it's only a question number from your text.

4. Plot the points. Remember that the *first* number of the ordered pair is how far to go *across* and the second number is how far to go up. Sometimes you will also be required to label the individual points you plot. Make sure to pay attention to what the question asks. You should usually label a point to the right of the point unless that would be unclear.

5. You will only need to join the points sometimes. Check what the question asks. Do the in-between points make sense, or only the points you have plotted? If in doubt, do NOT join points.

## Exercise 1
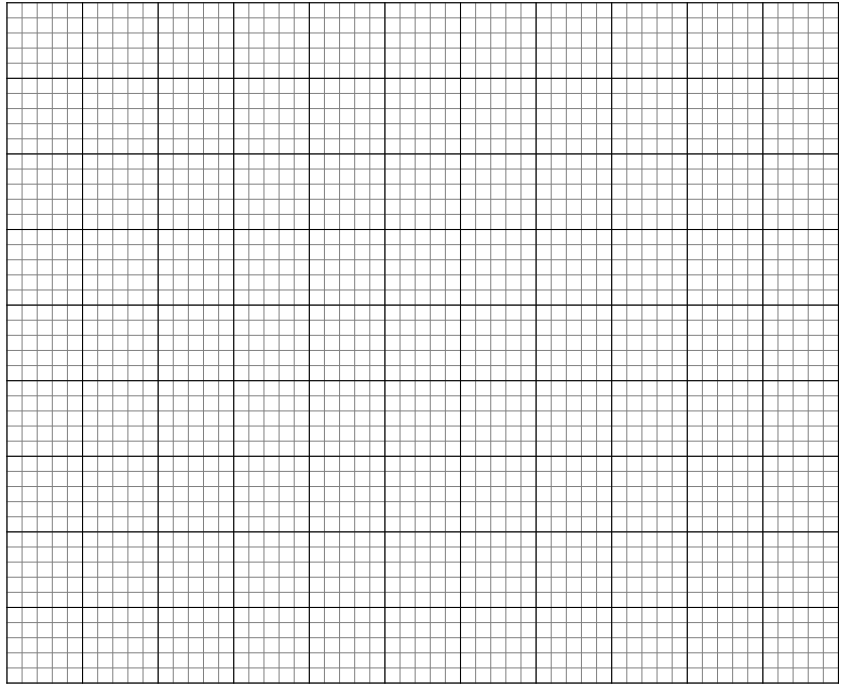
Plot the following points on the grid provided:

| $x$ | $y$ |
|---|---|
| 8 | 4 |
| 3 | 12 |
| 5 | 1 |
| 0 | 7 |
| 11 | 8 |
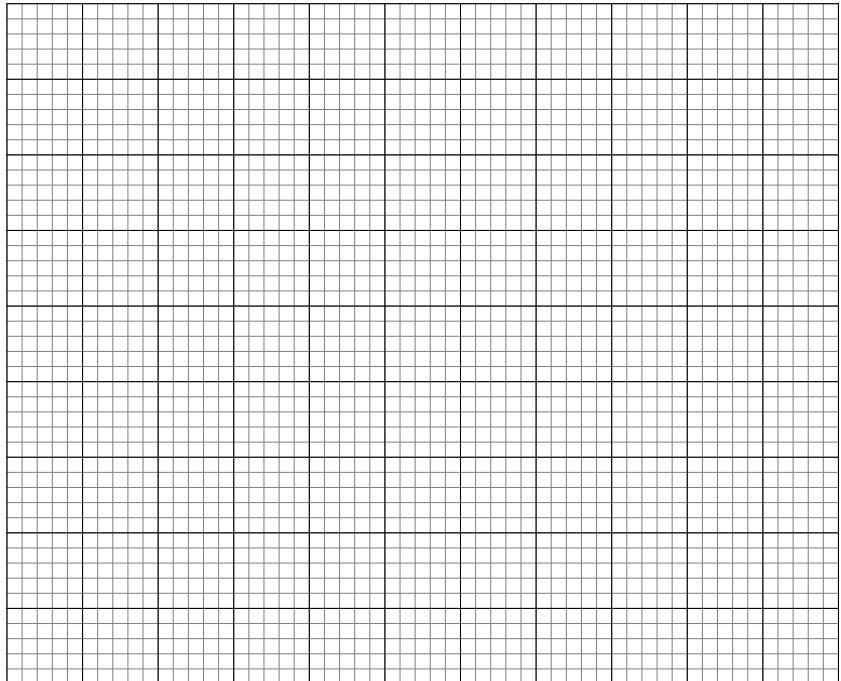
# Exercise 2

Plot the following points on the grid provided, and label each point:

|   | $x$ | $y$ |
|---|-----|-----|
| A | 1 | 7 |
| B | 2 | 3 |
| C | 3 | 2 |
| D | 4 | 4 |
| E | 6 | 9 |

# Exercise 3

Plot the following points on the grid provided, label each point, and join them in order from A to S:

|   | $(x, y)$ |
|---|----------|
| A | (9,4) |
| B | (9,3) |
| C | (7,1) |
| D | (2,1) |
| E | (1,2) |
| F | (1,6) |
| G | (2,7) |
| H | (1.5,8) |
| I | (1.5,9) |
| J | (2.5,11) |
| K | (3,10) |
| L | (5,10) |
| M | (5.5,11) |
| N | (7,9) |
| O | (7,8) |
| P | (6,7) |
| Q | (7,6) |
| R | (7,2) |
| S | (6,1) |