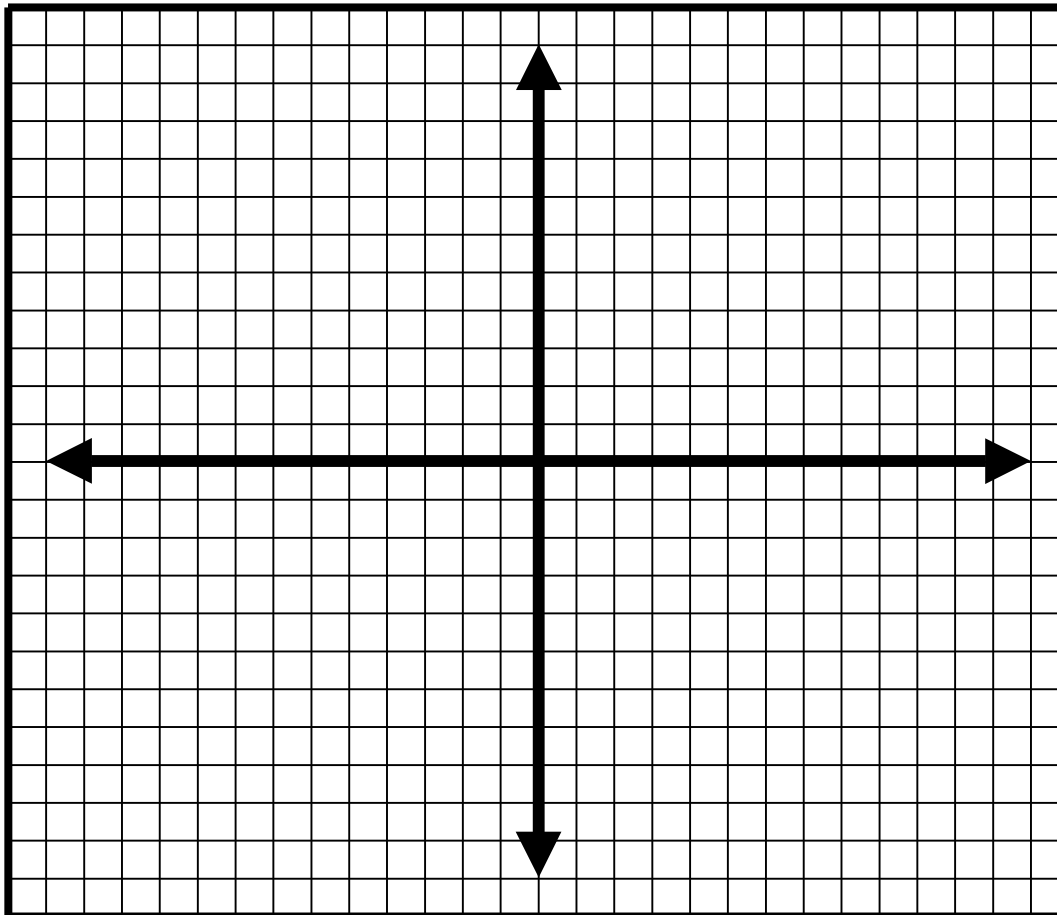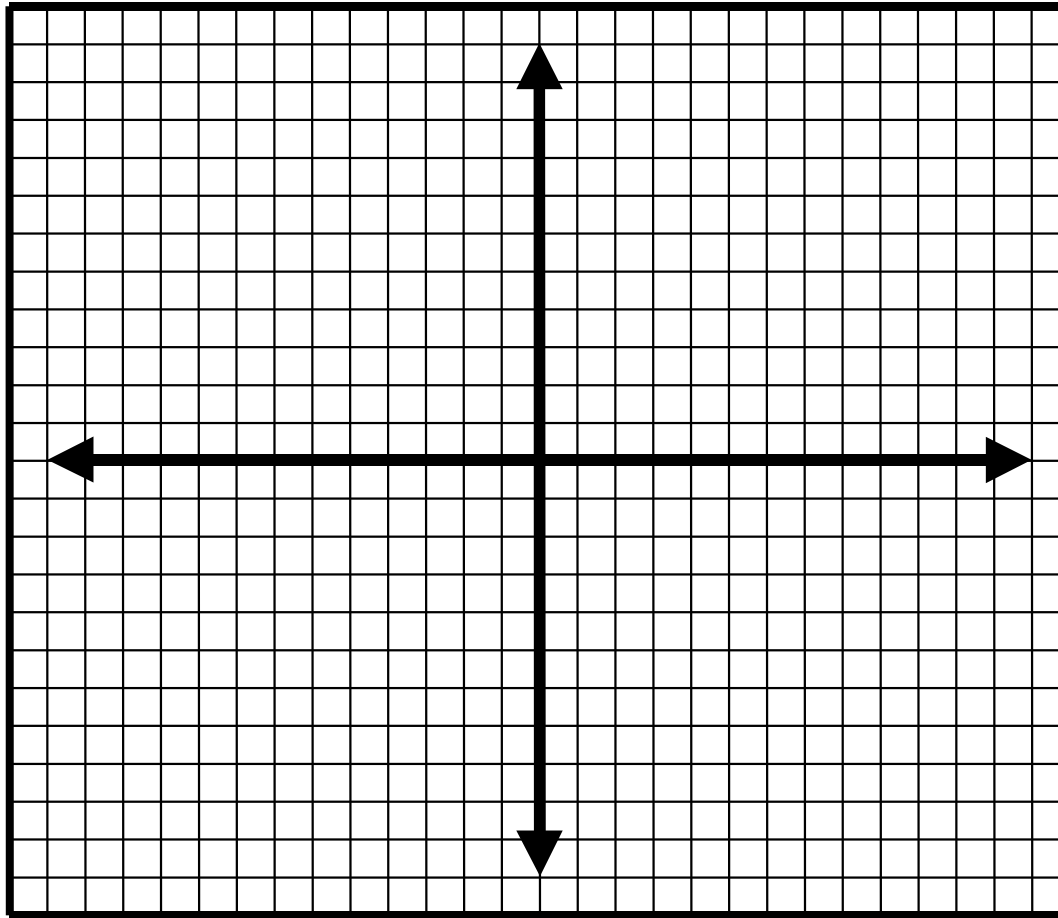# Co-ordinates

- **Ordered pairs** of numbers **fix the position** of a point on a **plane relative to an origin**
- Ordered pairs look like (5, 6) and (-3, 2). They are also called the **co-ordinates** of the point
- By convention, the **first number** in the pair tells you how far along the **X axis** the point is and the **second number** says how far up the **Y axis** the point is
- Below is a pair of axes showing both positive and negative co-ordinates on both axes - the axes show all four **quadrants**.
- **Label the axes** now!!

- Scale the axes using the scale 1cm = 1 (i.e. two squares to 1 unit).
- Plot the following set of co-ordinates…

  (2, 3)   (-2, -3)   (2, -3)

- **What shape** do you get?
- Add a point to make **an isosceles triangle** from the shape - what co-ordinates does your extra point have?

More plotting

- Use a **scale** of one square to 1 this time
- Label and scale your axes
- **Plot** the following co-ordinates…

  (0, 4)   (2, 8)   (-5, -6)   (-1, 2)   (-2, 0)

- What pattern do these points make?
- Find the co-ordinates of another point that follows the same pattern!

- On the same diagram above, plot these points - perhaps in a different colour

  (-3, 9)   (1, 5)   (5, 1)   (10, -4)

- Draw the line these points fall on
- What do you notice about this line? Write down two things that are different to the last line you drew
- Add up the X and Y co-ordinates in each of the points. What do you notice?

Check your answers against the model answers - perhaps swap with the person next to you and 'mark' each other's plotting.