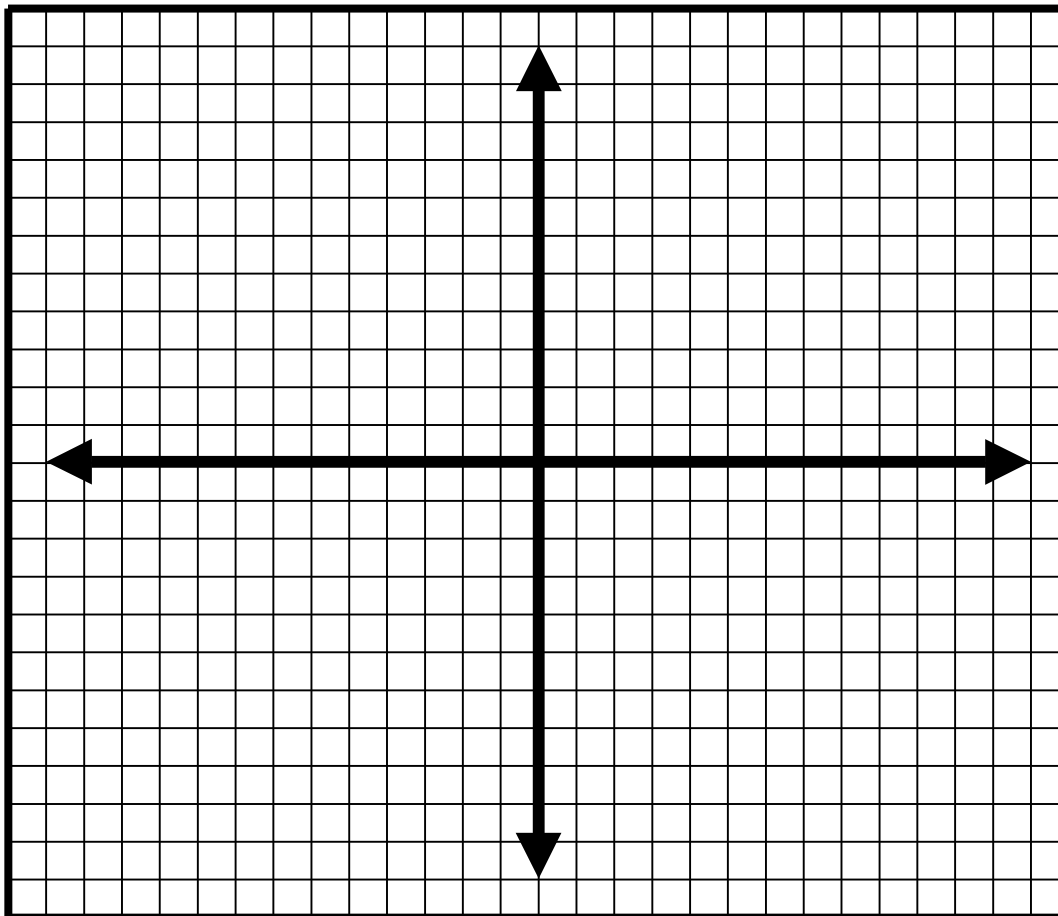# Straight line graphs

- The **formula** $y = 2x - 2$ defines a **straight line** graph as you saw in the last sheet
- You will often see the calculations for finding co-ordinates on this line drawn up as a table
- This table can be confusing unless explained (like most things)
- Using a scale of **two squares to 1 unit** on the grid below, a table of values for the formula $y = 2x - 2$ might look like…

X	-2	0	2	4
2x	-4	0	4	8
-2	-2	-2	-2	-2
Y	-6	-2	2	6

- Plot this line on the grid below and label your axes
- Notice how the **X co-ordinates go up in 2s and the Y co-ordinates go up in 4s**
- The co-ordinates of the points would look like (-2, -6), (0, -2), (2, 2), (4, 6) if written out in ordered pair style

- Now try making up tables for the formulas over the page…
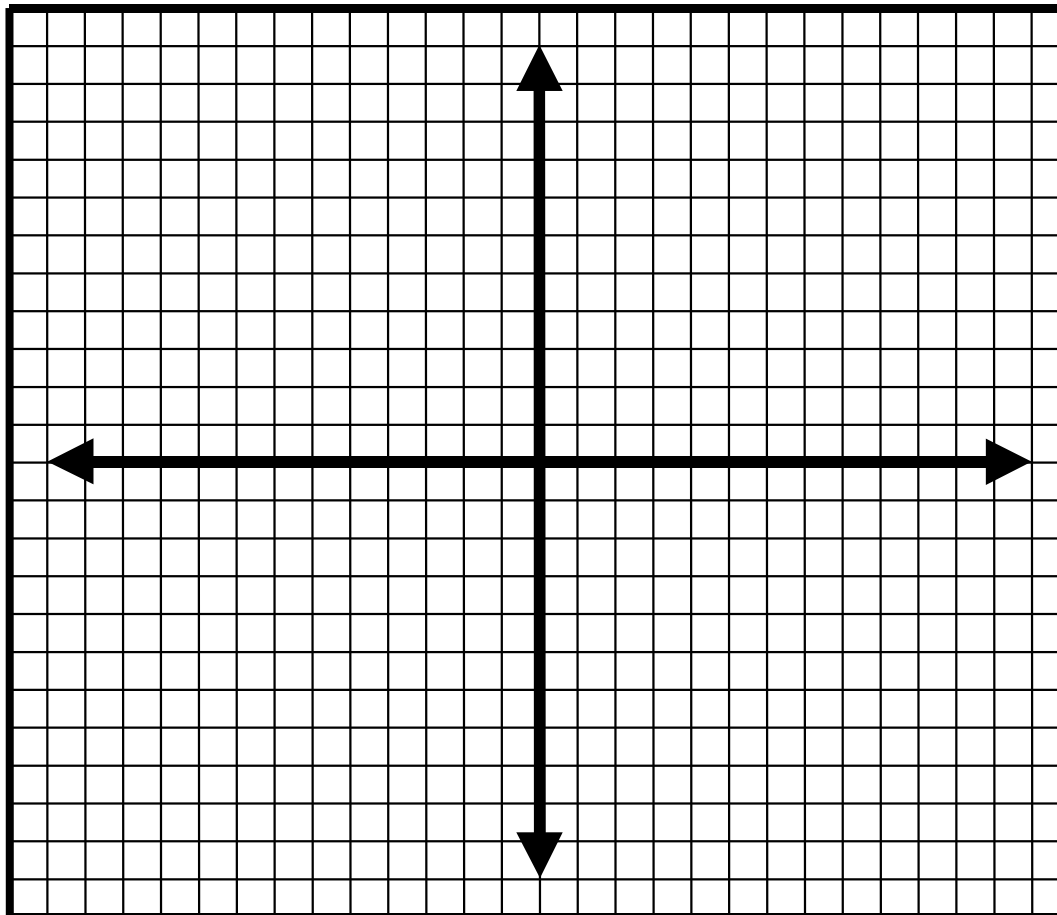
More straight line formulas

Fill in the tables and plot the following on the grid below using 2 squares to 1 unit

Formula $y = x + 2$

X	-2	0	2	4
x				
+2				
Y				

Formula $y = -2x + 2$

X	-2	0	2	4
Y				

- Notice that when the number in front of X is negative, the graph goes downhill.
- **Coefficient of *x*** is another name for the 'number in front of *x*'

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