Quadratic Graph Example
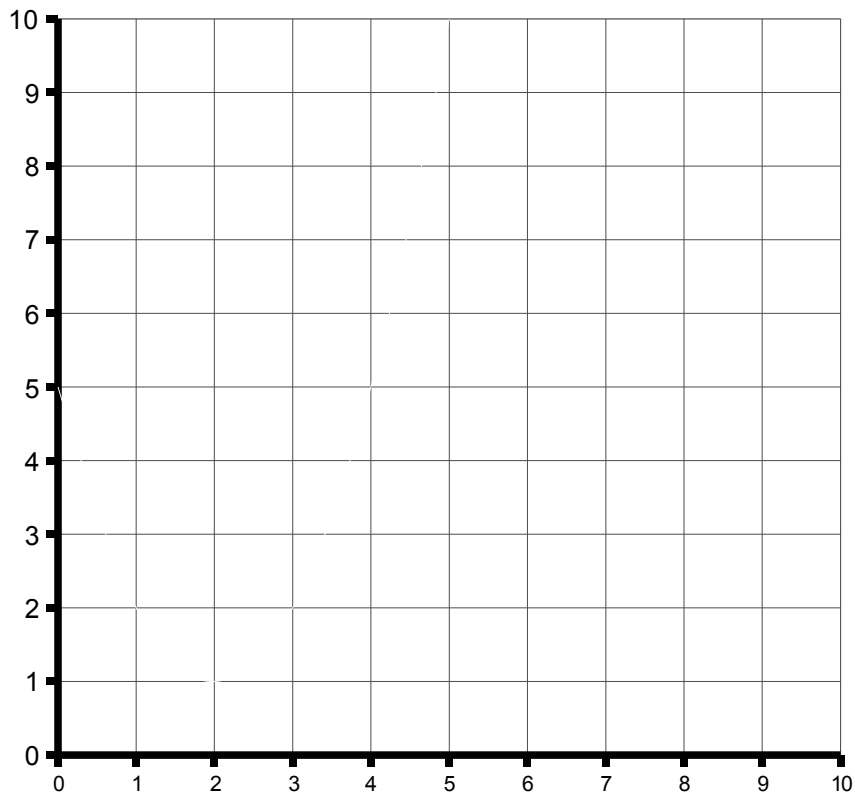
Complete the table below to draw a graph of $y = x^2 - 4x + 5$. The table covers the values of X from x = 0 to x = 5.

X	0	1	2	3	4	5
X²						
- 4x						
+5	+5	+5	+5	+5	+5	+5
Y						

Plot the graph on the axes provided below...
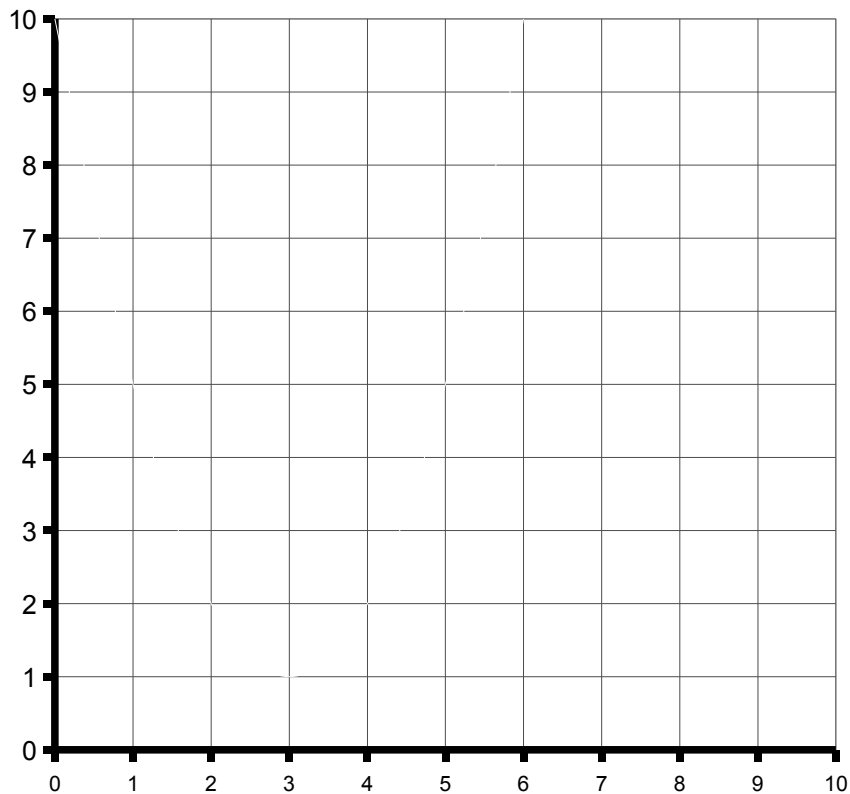

Then plot the line $y = 2x + 1$ on the same axes

Write down the coordinates of the point where the line and parabola cross.

Another quadratic example

Complete the table below to draw a graph of $y = x^2 - 6x + 10$. The table covers values of x from x = 0 to x = 6.

X	0	1	2	3	4	5	6
X²							
- 6x							
+10	+10	+10	+10	+10	+10	+10	+10
Y							

Plot the graph on the axes provided below...

Then plot the line $y = \frac{1}{2}x + 2$ on the same axes

Write down the coordinates of the *two* points where the line and parabola cross. Make sure you write the coordinates in the (x,y) style.

Plotting straight lines from formulas

Plot the line $y=2x+3$ on the axes provided below.

On the same axes, plot the line $y=x+4$

Label your lines and write down the coodinates of the point where $y=2x+3$ and $y=x+4$ cross.

Hint: For each line, make a little table and pick three values of x (say x = 0, x = 2 and x= 4), and then calculate the Y value for each value of X. Plot these points. Ask if you get stuck.
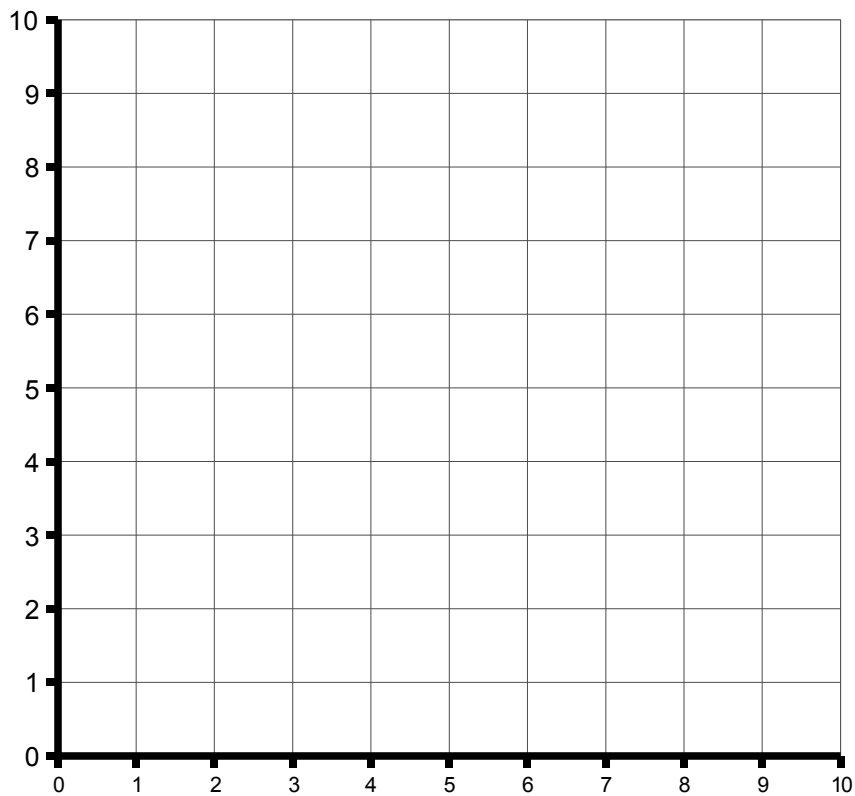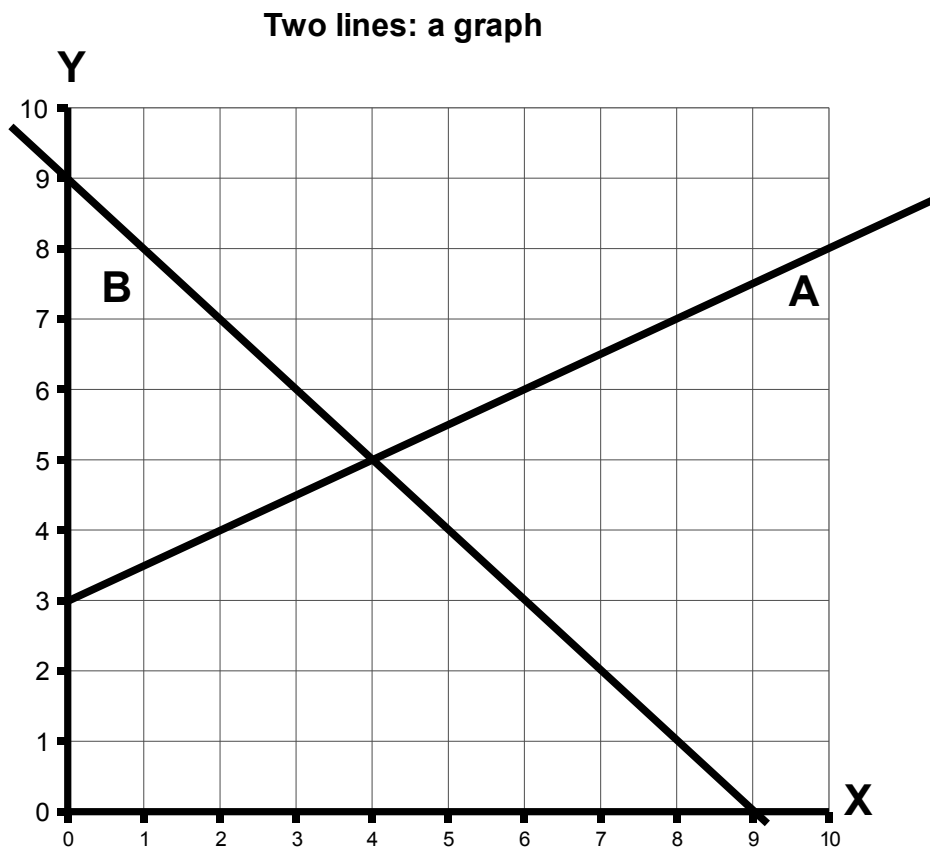
Remember that graphs need titles and that axes need to be labelled.

Gradient of straight line

The axes below show two straight lines, A and B. For each line

1. Find the gradient

2. Write down the intercept

3. Write down the formula of the line

Two lines: a graph

4. Write down the coordinates of the point where the two lines cross.

5. If you are *really* good at maths (and nothing like this will be on the test) can you solve an equation that tells you the X coordinate of where the lines A and B cross?