AQA Level 2 Further mathematics Number & algebra

Section 3: Functions and their graphs

Crucial points

1. **Make sure that you know what all of the terminology means**
   Check that you know the meaning of all the terminology relating to functions. See the Glossary if you need help.

2. **Ensure you can calculate the gradient of the line correctly.**
   The gradient of a line, m, is given by
   $$m = \frac{\text{change in } y}{\text{change in } x}$$
   The gradient, m, of the line joining two points, (x_1, y_1) and (x_2, y_2) is given by
   $$m = \frac{y_2 - y_1}{x_2 - x_1}$$
   Don't get the gradient calculation upside-down! The gradient tells you by how much y changes when x increases by 1.

3. **Make sure you can calculate the y-intercept of a straight-line graph.**
   The y-intercept of a line is where it crosses the y-axis. It is the value of y when $x = 0$.

4. **Make sure you understand how the standard straight-line equation works.**
   An equation which can be written in the form $y = mx + c$ represents a straight line.
   m is the gradient and c is the y-intercept.

5. **When sketching graphs, label points of intersection with the axes**
   You may lose marks if you don't label the points where the graph cuts the axes. Put $x = 0$ to find the intersection with the y-axis, and put $y = 0$ to find the intersection(s) with the x-axis.