Quadratic Graphs:

Example: Sketch the graph of $y = x^2 + 3x - 4$ and find the coordinates of the turning point.

Example: Sketch the graph of $y = 4x - 2x^2 - 3$ and find the coordinates of the turning point. Write down the equation of the line of symmetry.

Test Your Understanding

Sketch the following, indicating any intercepts with the axis, the turning point and the equation of the line of symmetry.

1. $y = x^2 + 4$

2. $y = x^2 - 7x + 10$

3. $y = 5x + 3 - 2x^2$

4. $y = x^2 + 4x + 11$

Extension:

[MAT 2003 1H] Into how many regions is the plane divided when the following three parabolas are drawn?

$$y = x^2$$
$$y = x^2 - 2x$$
$$y = x^2 + 2x + 2$$