

Questions - Sketching Quadratic Graphs

- 1 Sketch the graph of $y = -x^2$.
- 2 Sketch each graph, labelling where the curve crosses the axes.
a $y = (x + 2)(x - 1)$ **b** $y = x(x - 3)$ **c** $y = (x + 1)(x + 5)$
- 3 Sketch each graph, labelling where the curve crosses the axes.
a $y = x^2 - x - 6$ **b** $y = x^2 - 5x + 4$ **c** $y = x^2 - 4$
d $y = x^2 + 4x$ **e** $y = 9 - x^2$ **f** $y = x^2 + 2x - 3$
- 4 Sketch the graph of $y = 2x^2 + 5x - 3$, labelling where the curve crosses the axes.

Extend

- 5 Sketch each graph. Label where the curve crosses the axes and write down the coordinates of the turning point.
a $y = x^2 - 5x + 6$ **b** $y = -x^2 + 7x - 12$ **c** $y = -x^2 + 4x$
- 6 Sketch the graph of $y = x^2 + 2x + 1$. Label where the curve crosses the axes and write down the equation of the line of symmetry.