

Stationary and Inflexion Points

- 1) The curve $y = ax^2 + 12x + 1$ has a stationary point when $x = 2$.
Calculate a .
Is the stationary point a local max or a local min?
- 2) The curve $y = ax^2 + bx + c$ has a max point at $(2, 18)$ and passes through $(0, 10)$. Evaluate a , b and c .
- 3) The curve $y = ax^4 + bx^3 + cx^2$ passes through the point $(0, 0)$. It has a point of inflection at $(0, 0)$. It has a point of inflection at $(\frac{1}{2}, -\frac{1}{16})$. Calculate a , b and c .
- 4) The curve $y = ax^3 + bx^2 + c$ passes through the point $(0, 130)$. It has a point of inflection at $(4, 2)$. Calculate a , b and c .
- 5) The curve $y = x^3 + ax^2 + bx + c$ passes through the point $(0, -4)$. It has a stationary point at $(1, -3)$. Calculate a , b and c .