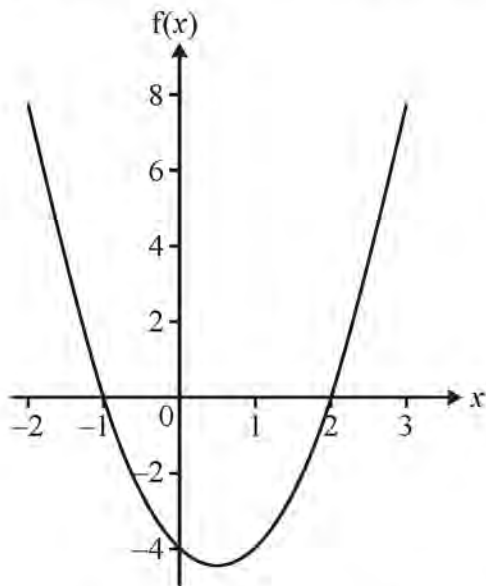


- 12 The diagram shows the graph of $f(x) = k(x-p)(x-q)$ where k , p and q are constants. The graph passes through the points $(-1, 0)$, $(0, -4)$ and $(2, 0)$.



- (a) Find $f(x)$ in the form $ax^2 + bx + c$. [3]

A cubic curve has gradient function $f(x)$. This cubic curve passes through the point $(0, 8)$.

- (b) Find the equation of the cubic curve. [4]
- (c) Determine the coordinates of the stationary points of the cubic curve. [3]