12 A curve has equation $y = x^3 - kx^2 + 1$.
When $x = 2$, the gradient of the curve is 6.

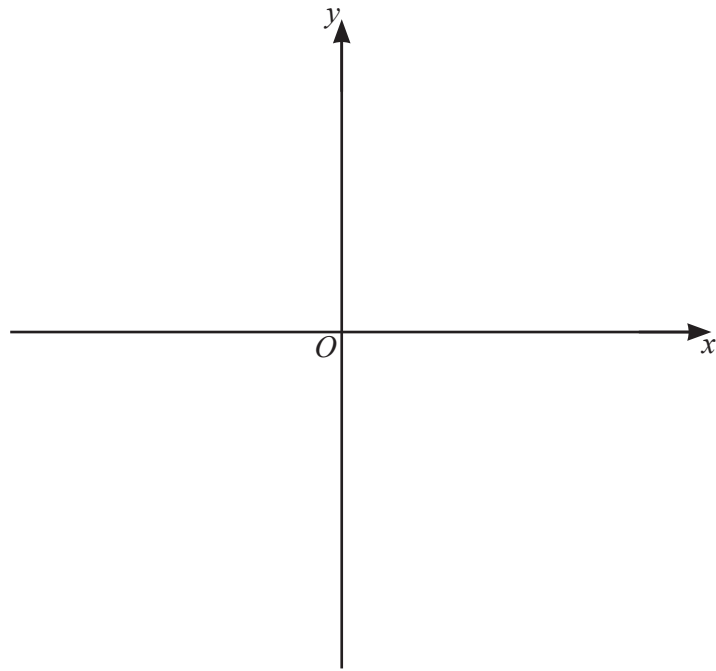**(a)** Show that $k = 1.5$.

[5]

(b) Find the coordinates of the two stationary points of $y = x^3 - 1.5x^2 + 1$.
You must show all your working.

(................, ...) and (................, ...) [4]

(c) Sketch the curve $y = x^3 - 1.5x^2 + 1$.

[2]