

**7** In this question you must show detailed reasoning.

A curve has equation  $y = 4x^3 - 6x^2 - 9x + 4$ .

- (a)** Sketch the gradient function for this curve, clearly indicating the points where the gradient is zero. **[4]**
- (b)** Find the set of values of  $x$  for which the gradient function is decreasing. Give your answer using set notation. **[2]**