
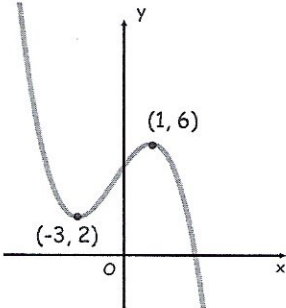


19th February	
Factorise $4x^2 - 4x - 3$ $(2x - 3)(2x + 1)$	 CorbettmOths
Rationalise and simplify $\frac{\sqrt{6} - 1}{8 - 3\sqrt{6}} \times \frac{(8 + 3\sqrt{6})}{(8 + 3\sqrt{6})}$	$\frac{8\sqrt{6} + 18 - 8 - 3\sqrt{6}}{64 - 54}$ $= \frac{5\sqrt{6} + 10}{10}$ $= \frac{1}{2}\sqrt{6} + 1$
Shown below is the graph of $y = f(x)$ The point $(-3, 2)$ is a minimum point and the point $(1, 6)$ is a maximum point. 	$-3 < x < 1$
Write down the range of values of x for which $f(x)$ is an increasing function.	
$f(x) = x^2 - 3x$ Solve $f(2x) - f(x - 1) = 4$ Give your answers to 2 decimal places $f(2x) = (2x)^2 - 3(2x)$ $= 4x^2 - 6x$	$f(x-1) = (x-1)^2 - 3(x-1)$ $= x^2 - 2x + 1 - 3x + 3$ $= x^2 - 5x + 4$ $f(2x) - f(x-1) = 3x^2 - x - 4 = 4$ $3x^2 - x - 8 = 0$ $a = 3$ $b = -1$ $c = -8$ $x = -1.47$ $\text{or } x = 1.81$