

**18th September**

Corbettmaths

Rationalise the denominator

$$\frac{9 - \sqrt{3}}{\sqrt{3} + 1}$$

$$g(x) = x^3 - 4 \quad \text{for } -3 \leq x \leq 1$$

Work out the range of  $g(x)$ 

Solve the inequality  $x^2 + 6x + 1 < 0$

Leave your answer in surd form.

Solve

$$3\cos^2 x + 7\cos x = \sin^2 x - 4$$

for  $0^\circ < x < 360^\circ$