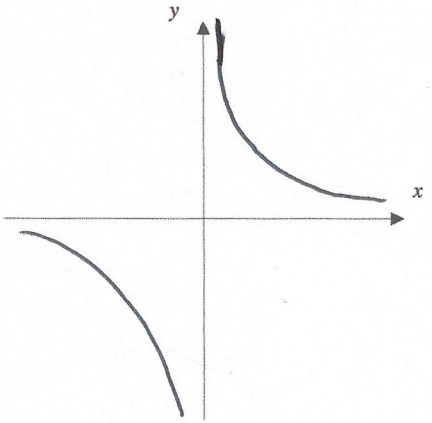
Name: _____ 5-a-day Higher Plus

22nd October

Corbettmaths

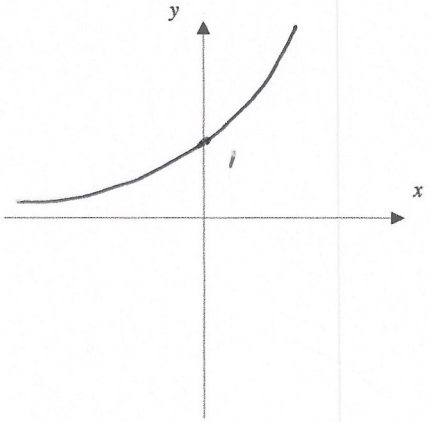
Sketch

$y = \frac{1}{x}$



Sketch

$y = 4^x$



Factorise fully

$y - 4y^3$

$y(1-4y^2)$

$y(1-2y)(1+2y)$

Solve, giving your answers to one decimal place.

$\frac{6}{x-1} = \frac{5-2x}{x-3}$

$6(x-3) = (5-2x)(x-1)$

$6x - 18 = 5x - 5 - 2x^2 + 2x$

$6x - 18 = -2x^2 + 7x - 5$

$2x^2 - x - 13 = 0$

Using quadratic formula

$x = 2.8$ or $x = -2.3$

The curve $y = x^2 - 6x + 1$ has a line of symmetry.

Write down the equation of the line of symmetry

$y = (x-3)^2 - 9 + 1$

$y = (x-3)^2 - 8$

$x = 3$