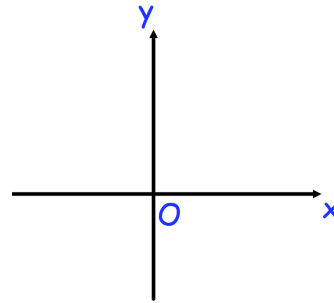


29th September

Corbettmaths

Factorise fully $27y^2 - 75x^2$ Sketch the graph of $y = 16 \times \left(\frac{1}{2}\right)^{-x}$

Label the coordinates of any points of intersection with the coordinate axes.

The function $f(x)$ is defined as

$$f(x) = 14 - 3x$$
$$p \leq x < 8$$

The range of $f(x)$ is
 $-10 \leq f(x) \leq 30.5$ Work out the value of p

The curve C has equation

$$y = \frac{1}{2}x^4 - 3x^2$$

The point P on the curve C has x-coordinate 2.

The tangent at P meets the x-axis at the point $(k, 0)$ Find the value of k