

3rd May

Corbettmaths

The equation $x^2 + 9kx + k = 0$ has equal roots. k is a non zero constant.

Find k

Given

$$y = 4x^7 - \frac{3}{\sqrt{x}}$$

find $\frac{d^2y}{dx^2}$

The points A, B and C have coordinates $(-3, 2)$, $(7, 0)$ and $(10, 9)$.

Is the triangle ABC a right angled triangle?

Sketch

a) $y = \frac{4}{x}$

b) $y = \frac{4}{x} + 2$

Clearly label any points of intersection with the coordinate axes.

