

**25th March**

Corbettmaths

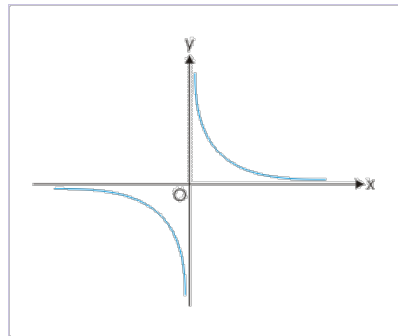
Find the distance between the points (10, 4) and (-3, 1)

Shown is the curve with equation

$$y = \frac{1}{x} \quad x \neq 0$$

Sketch on the same diagram,

$$y = \frac{3}{x} \quad x \neq 0$$



Given

$$y = 7x^3 - 2\sqrt{x} + \frac{4x^3 + 3}{2x}$$

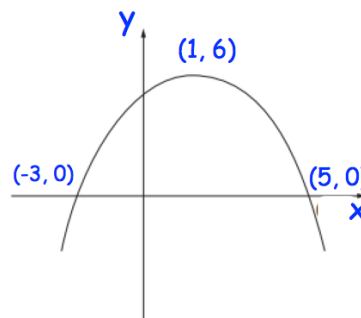
Find

$$\frac{dy}{dx}$$

Shown is the function  $y = f(x)$   
The maximum point is (1, 6)

The maximum point of  $y = f(x+a)$   
is on the y-axis.

Find a.



The points A and B have coordinates (8, 4) and (3, 0) respectively.  
The point C has coordinates (3, k) and  $AC = AB$ .  
Find the value of k.