

4th March



Corbettmaths

Find the value of a

$$3^a = \frac{1}{9}$$

Find the value of b

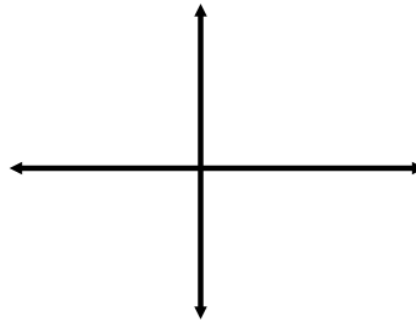
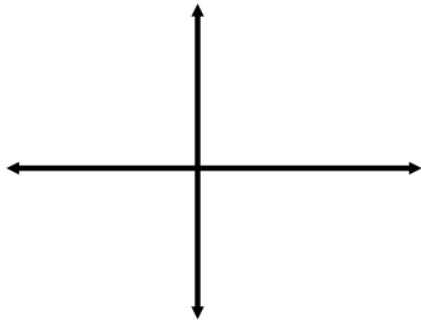
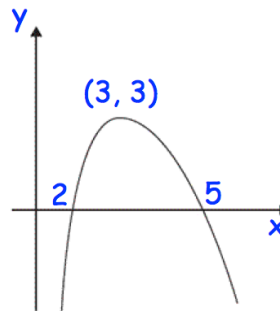
$$8^b = 16$$

Shown is the graph of  $y = f(x)$ 

Sketch

a)  $y = -f(x)$

b)  $y = f(2x)$

The curve C has equation  
 $y = x^3 - 4x + 3$ 

The point P has coordinates (2, 3)

Find the equation of the tangent to C at P.

The point Q also lies on C. Given the  
tangent to C at P is parallel to the tangent  
to C at Q, find the x-coordinate of Q.