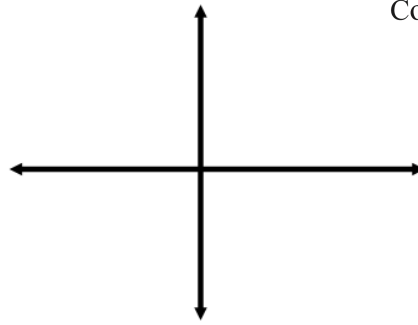


**20th April**

Corbettmaths

Sketch the graph of  
 $y = -x^2 + x + 56$

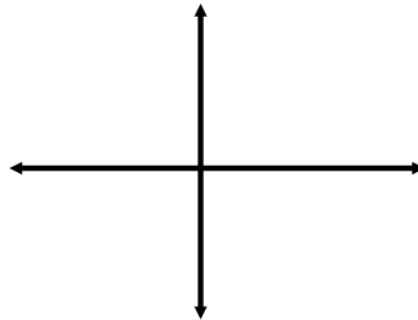


Find the set of values of  $k$  for which  
the equation  $4x^2 + kx + 1 = 0$  has  
no real roots

Given

$$f(x) = \frac{1}{x}$$

Sketch  $y = f(x) + 4$  and state the  
equations of the asymptotes



Find the coordinates of the point  
where  $y = f(x) + 4$  crosses a  
coordinate axis.

Find the equation of the normal to  
the curve  $y = 6x^3 - 5x^2 + 7$   
when  $x = 4$