

4. (a) Sketch the curve with equation

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

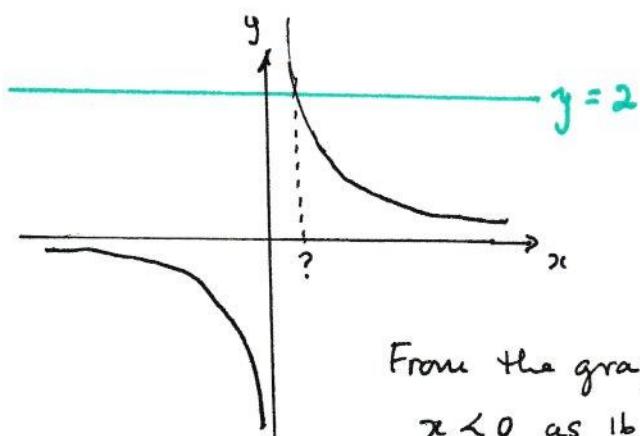
where  $k$  is a positive constant.

(2)

- (b) Hence or otherwise, solve

$$\frac{16}{x} \leq 2$$

(3)



From the graph  $\frac{16}{x} \leq 2$  when  
 $x < 0$  as  $\frac{16}{x}$  is less than zero

$\frac{16}{x}$  is also  $\leq 2$  the right of the dotted line shown.

The dotted line is when  $\frac{16}{x} = 2$  is when  $x = 8$

So the solution is  $x < 0$  or  $x \geq 8$

