

**1st May**

Corbettmaths

The line L1 has equation  $y = 3x - 1$   
 The line L2 has equation  $3x + y + 2 = 0$

Are these lines perpendicular?

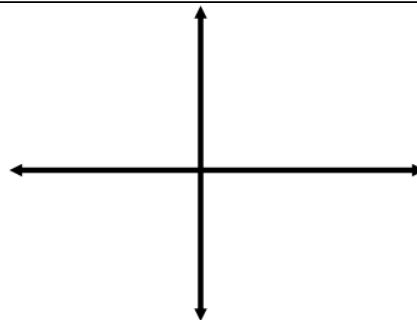
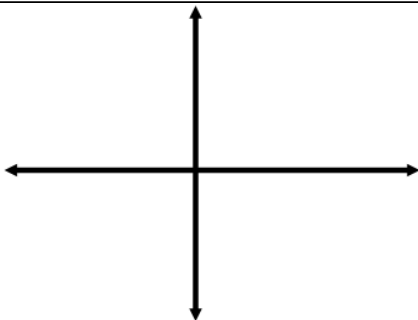
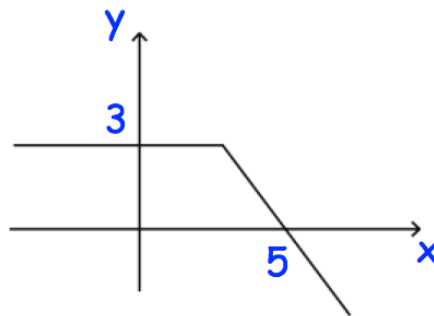
Find where the two lines intersect?

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

Sketch

(a)  $2f(x)$

(b)  $f(\frac{1}{3}x)$



Find the least value of  $n$  for which

$$\sum_{r=1}^n (4r + 5) > 8500$$