

## Ex 5

(1) a)  $y = 4x - 5$   $m = 4$  thru'  $(2, 3)$

$$y - 3 = 4(x - 2)$$

$$y - 3 = 4x - 8$$

$$4x - y - 5 = 0$$

b)  $y = 4 - 6x$   $m = -6$  thru'  $(-1, 3)$

$$y - 3 = -6(x - (-1))$$

$$y - 3 = -6x - 6$$

$$6x + y + 3 = 0$$

c)  $2y + 3x = 7$

$$2y = -3x + 7$$

$$y = \frac{-3x + 7}{2} \quad m = -\frac{3}{2} \text{ thru' } (2, -5)$$

$$y - (-5) = -\frac{3}{2}(x - 2)$$

$$2y + 10 = -3x + 6$$

$$3x + 2y + 4 = 0$$

(2)  $3x - 5y = 2$

$$5y = 3x - 2$$

$$y = \frac{3x - 2}{5}$$

$$4x + ky = 7$$

$$ky = -4x + 7$$

$$y = \frac{-4x + 7}{k}$$

parallel so gradients are equal

$$\frac{3}{5} = -\frac{4}{k}$$

$$3k = -20$$

$$k = -\frac{20}{3}$$