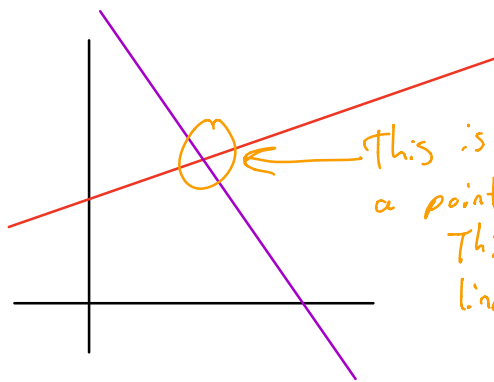
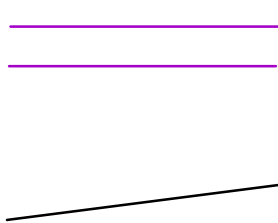


8.1 / 5a) Is the point a solution?



This is the only place where a point is on both lines.  
This is the solution to both lines.



parallel lines have no solution for both lines

if both lines are on top of each other there are infinite solutions.

$$y = 3x - 5$$
$$y = 11 - x$$

P.  $(4, 7)$   
 $(x, y)$

if this is a solution,  $x, y$  will work for both equations.

$$7 = 3(4) - 5$$

$$7 = 12 - 5$$

$$7 = 7$$

works for eq<sup>n</sup> 1.

$$7 = 11 - 4$$

$$7 = 7 \quad \checkmark$$

works for eq<sup>n</sup> 2.

$(4, 7)$  works for both lines.  
 $\therefore$  it is a sol<sup>n</sup>.

6a) Solve Graphically.

$$y = -2x + 5$$

$$y = x - 4$$

Check

$$-1 = -2(3) + 5$$

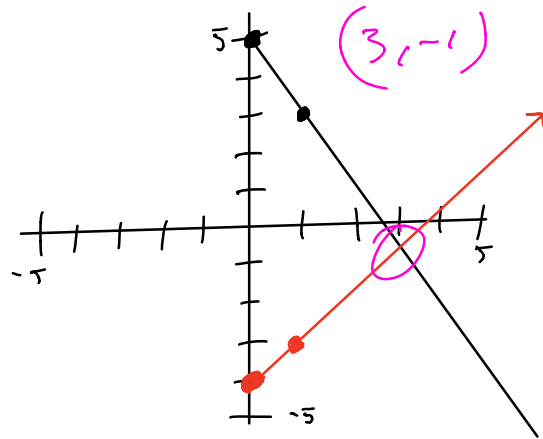
$$-1 = -6 + 5$$

$$-1 = -1 \quad \checkmark$$

$$-1 = 3 - 4$$

$$-1 = -1 \quad \checkmark$$

sol<sup>n</sup> for both lines



6b)  $4x - y = -8$

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

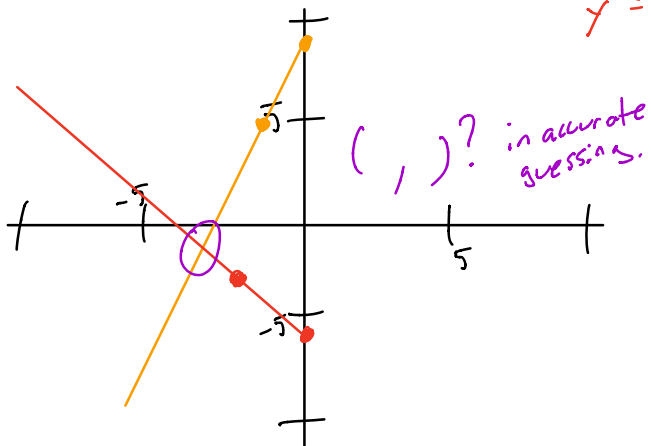
$$y = 4x + 8$$

$$2x + 3y = -18$$

$$3y = -2x - 18$$

$$y = \frac{-2x - 18}{3}$$

$$y = \frac{-2x}{3} - 6$$



$$5c) \quad 2x - 3y = 18$$

$$(-6, -10)$$

$$2(-6) - 3(-10) = 18$$

$$-12 + 30 = 18$$

$$18 = 18 \checkmark$$

$$x + 2y = -26$$

$$-6 + 2(-10) = -26$$

$$-6 - 20 = -26$$

$$-26 = -26 \checkmark$$