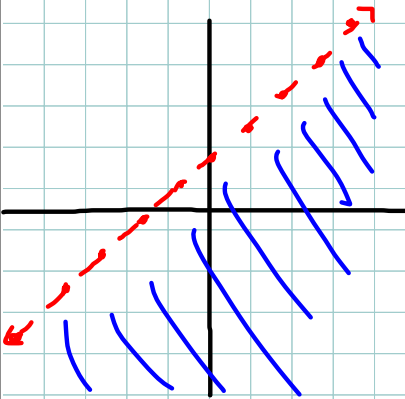
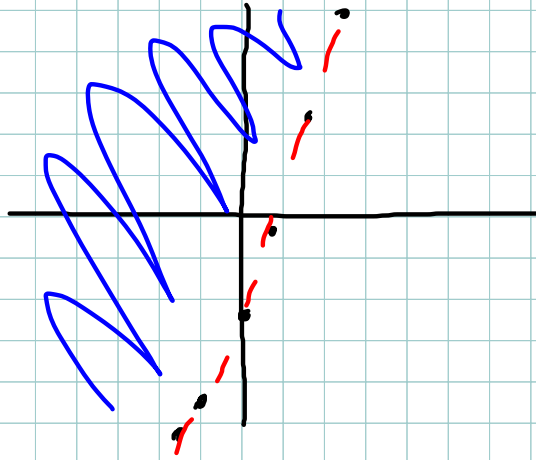


6.1 HW pg. 303-305 # 1, 4, 5cd, 8, 10

1) $y < x + 4$

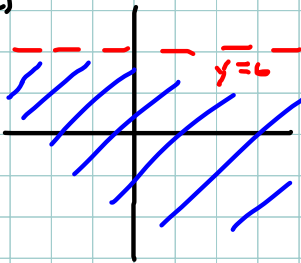


b) $-y < -6x + 3 \rightarrow y = 6x - 3$

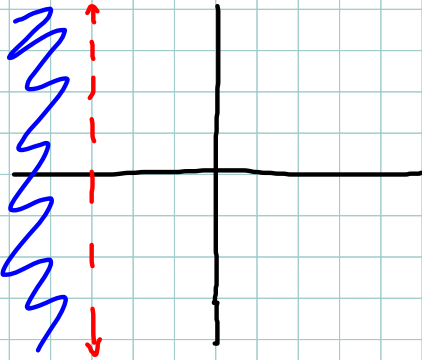


4) a) ii b) i c) iii

5) c)

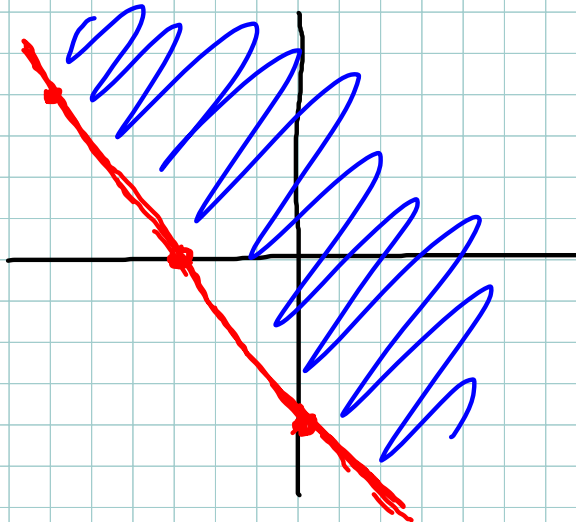


d) $-4x - 8 > 4$
 $-4x > 12$
 $x < -3$



f) $4x + 3y \geq -12$
 $4x + 3y = -12$
 $3y = -4x - 12$
 $y = -\frac{4}{3}x - 4$

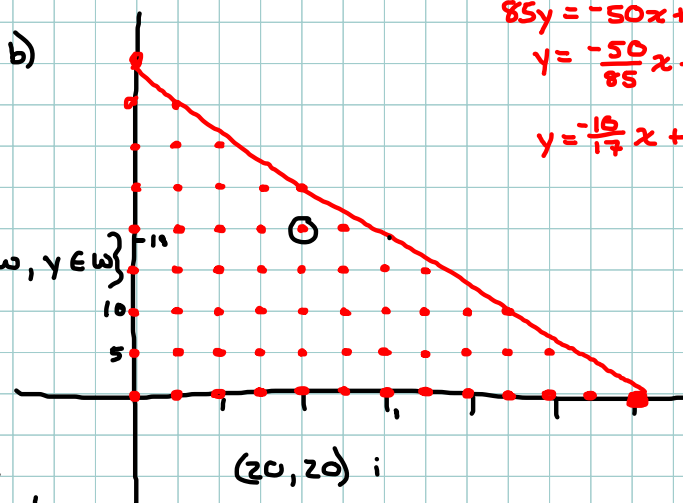
test pt.
 $4(0) + 3(0) \geq -12$
 $0 \geq -12$
✓



8) Let x = jerseys
Let y = sticks

a) $50x + 85y \leq 3000$

$\{(x,y) \mid 50x + 85y \leq 3000, x \in \mathbb{N}, y \in \mathbb{N}\}$



$$85y = -50x + 3000$$

$$y = -\frac{50}{85}x + \frac{3000}{85}$$

$$y = -\frac{10}{17}x + \frac{600}{17}$$

c) (20,20) is most optimum.
every one gets one of each
with 2 spare. Plus, stay
under budget.

10) a) Let x = maple tree
Let y = birch tree
 $75x + 50y > 1500$

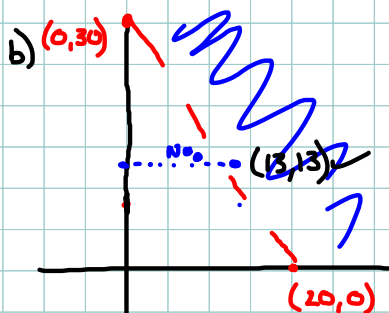
$\{(x,y) \mid 75x + 50y > 1500, x \in \mathbb{N}, y \in \mathbb{N}\}$

$$75x + 50y = 1500$$

$$50y = -75x + 1500$$

$$y = -\frac{75}{50}x + \frac{1500}{50}$$

$$y = -\frac{3}{2}x + 30$$



$$75x = 1500$$

$$x = \frac{1500}{75}$$

$$x = 20$$

c) (13,13) yes - inside shaded area

(14,9) No - not in shaded area

(9,14) No - Not in shaded area