

Pg. 403 (8-30 evens)

⑧

(8, 2)

$$3x - 2y \leq 17$$

$$3(8) - 2(2) \leq 17$$

$$24 - 4 \leq 17$$

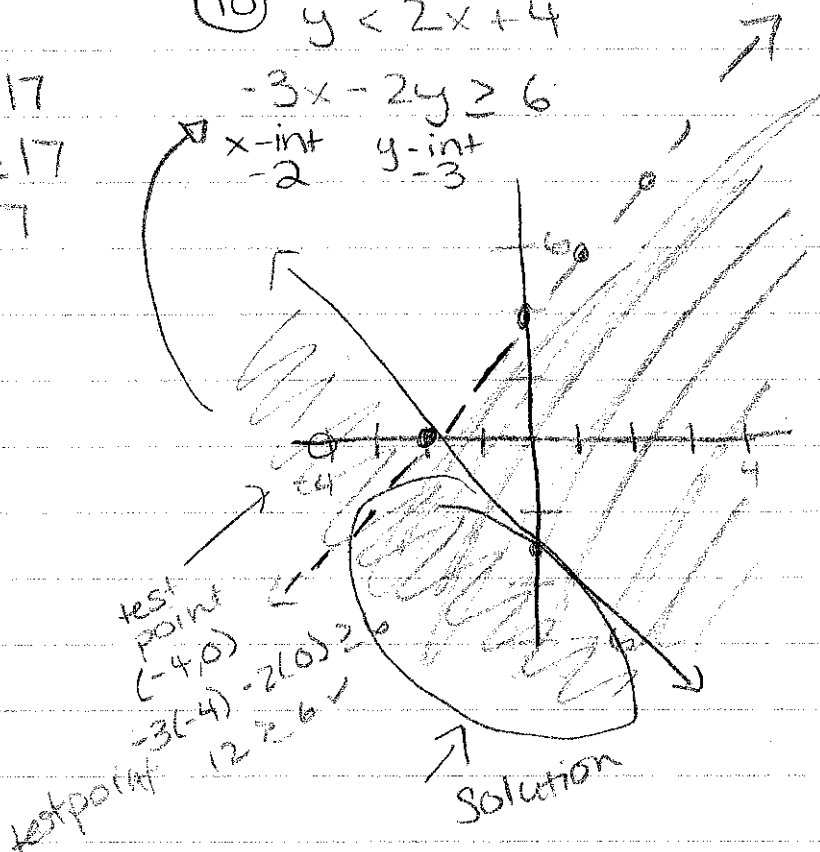
$$20 \leq 17$$

NO!

⑩ $y < 2x + 4$

$$-3x - 2y \geq 6$$

x-int y-int
-2 -3



⑫

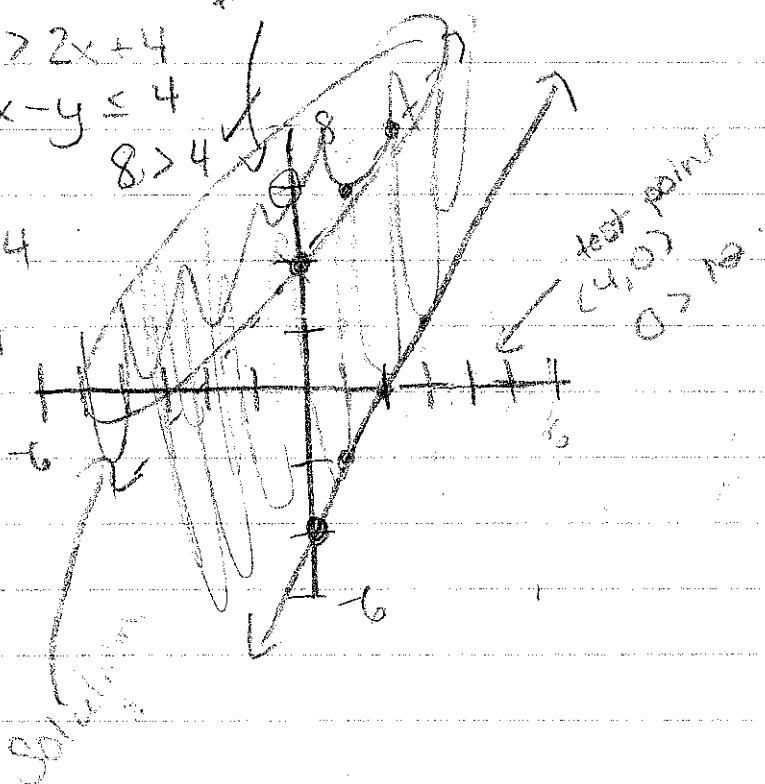
$$y > 2x + 4$$

$$2x - y \leq 4$$

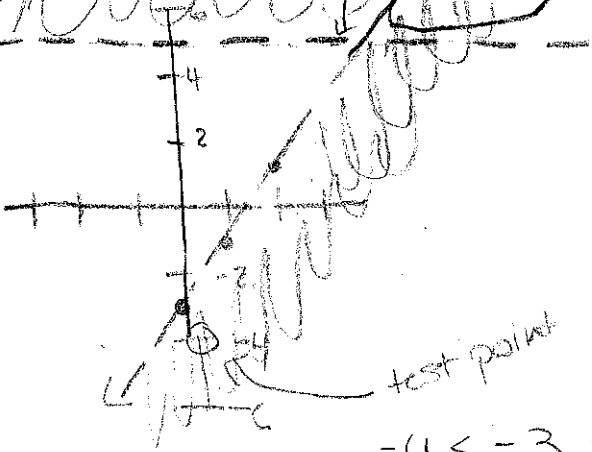
$$8 > 4$$

$$y < 2x + 4$$

$$y > 2x - 4$$



$y > 5$ ~~or~~ $y < 5$ ← same



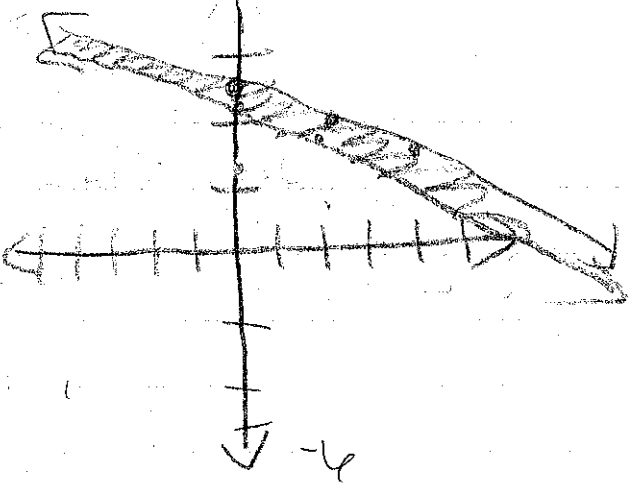
$= 4 < -3$ ✓

⑩ $x + 2y \leq 10$
 $x + 2y \geq 9$

$\Rightarrow \frac{2y}{2} \leq \frac{-x + 10}{2}$
 $\frac{2y}{2} \geq \frac{-x + 9}{2}$

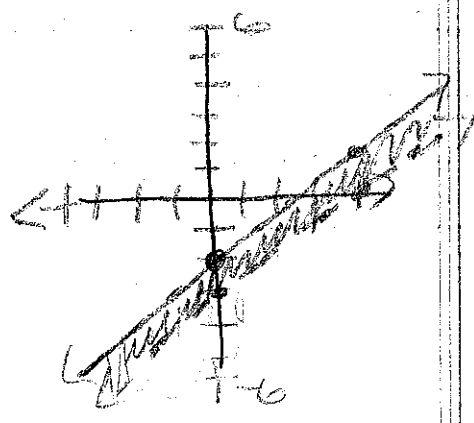
$y \leq -\frac{1}{2}x + 5$
 $y \geq -\frac{1}{2}x + 4.5$

∴ parallel



⑱ $y \leq .75x - 2$
 $y > .75x - 3$

$\Rightarrow y \leq \frac{3}{4}x - 2$
 $y > \frac{3}{4}x - 3$



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$$2x - \frac{1}{4}y < 1$$

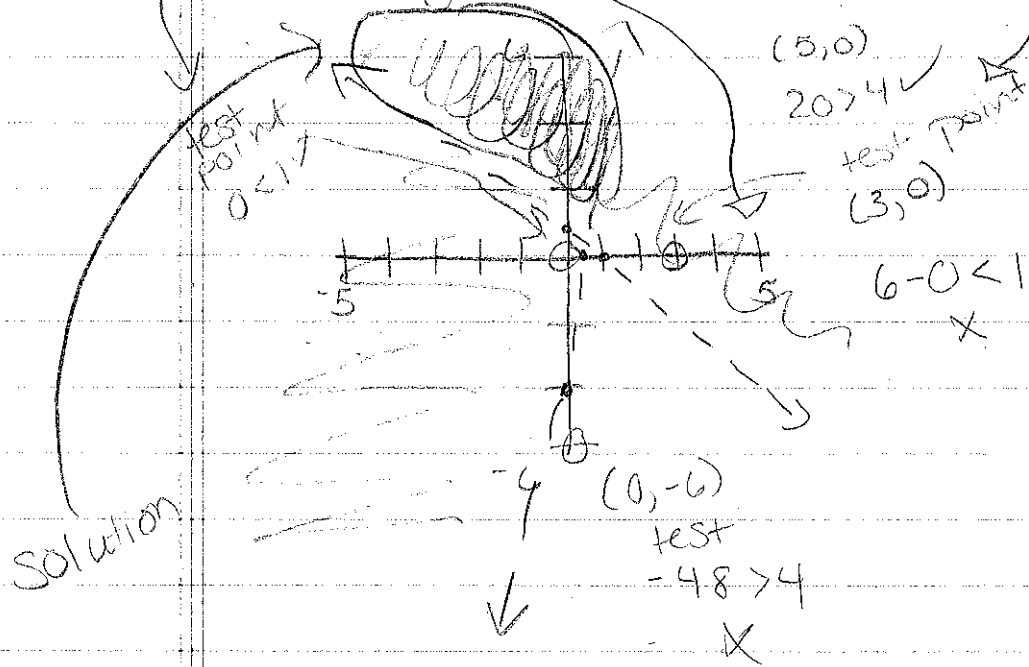
$$4x + 8y > 4$$

$$x\text{-int} = \frac{1}{2}$$

$$y\text{-int} = -4$$

$$x\text{-int} = 1$$

$$y\text{-int} = \frac{1}{2}$$



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$$y \geq -2x + 2$$

$$y < 3x - 2$$

24

$$y < -\frac{3}{2}x + 3$$

$$x < 1$$

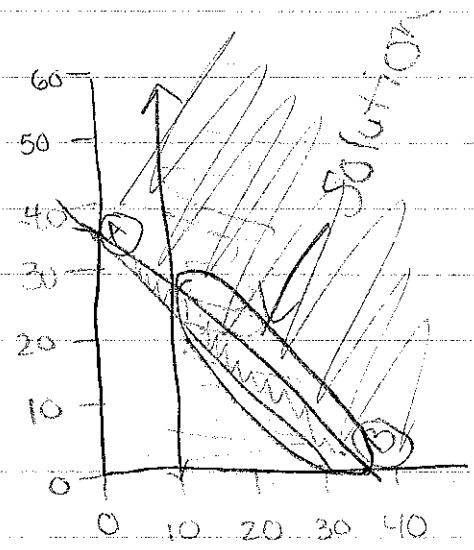
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$$12x + 10y \geq 350$$

$$x + y \leq 35$$

$$x \geq 10$$

x-int = 29.16
y-int = 35



20) Lengths $L(x)$
width $W(y)$

Total fence 150

$$2L + 2W \leq 150 \quad \begin{array}{l} x\text{-int} = 75 \\ y\text{-int} = 75 \end{array}$$

$$L \geq 40 \text{ or } x \geq 40$$

$$W \geq 5 \text{ or } y \geq 5$$

