

HW Solutions

①

$$\underline{x} + \underline{x+2} > 200$$

$$2x + 2 > 200$$

$$-2 \quad -2$$

$$\hline 2x > 198$$

$$\hline x > 99$$

100 and 102

$$\textcircled{2} \quad \frac{80 + 85 + 76 + x}{4} \geq 84$$

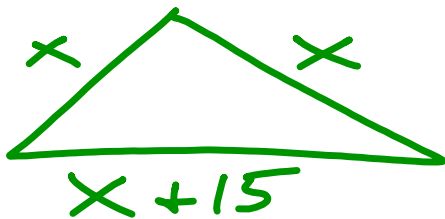
$$80 + 85 + 76 + x \geq 336$$

$$\begin{array}{r} 241 + x \geq 336 \\ -241 \quad \quad -241 \end{array}$$

$$x \geq 95$$

at least 95

②



$$x + x + x + 15 \geq 90$$

$$3x + 15 \geq 90$$

$$-15 \quad -15$$

$$\frac{3x \geq 75}{3 \quad 3}$$

$$x \geq 25$$

25cm, 25cm, 40cm

(4)

$$k > \frac{1}{3}(12-k)$$

 k $12-k$

$$\frac{3}{3} k > 4 - \frac{1}{3}k$$

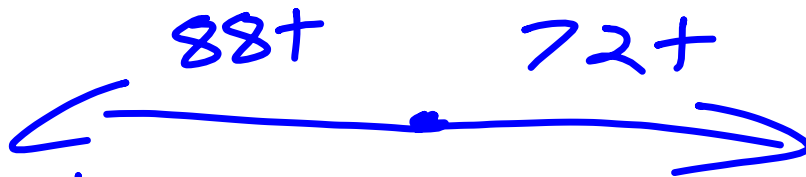
$$+ \frac{1}{3}k \quad + \frac{1}{3}k$$

$$\frac{3}{4} \left(\frac{4}{3}k \right) > \cancel{4} \frac{3}{4}$$

$$k > 3$$

at least
4 books

(5)



$$d = rt$$

$$88t + 72t \geq 560$$

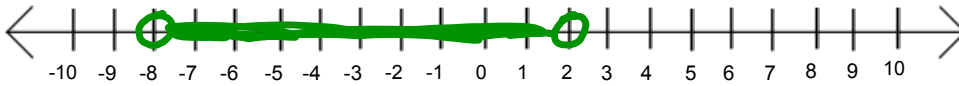
$$\frac{160t}{160} \geq \frac{560}{160}$$

$$t \geq 3.5$$

at least
3.5h

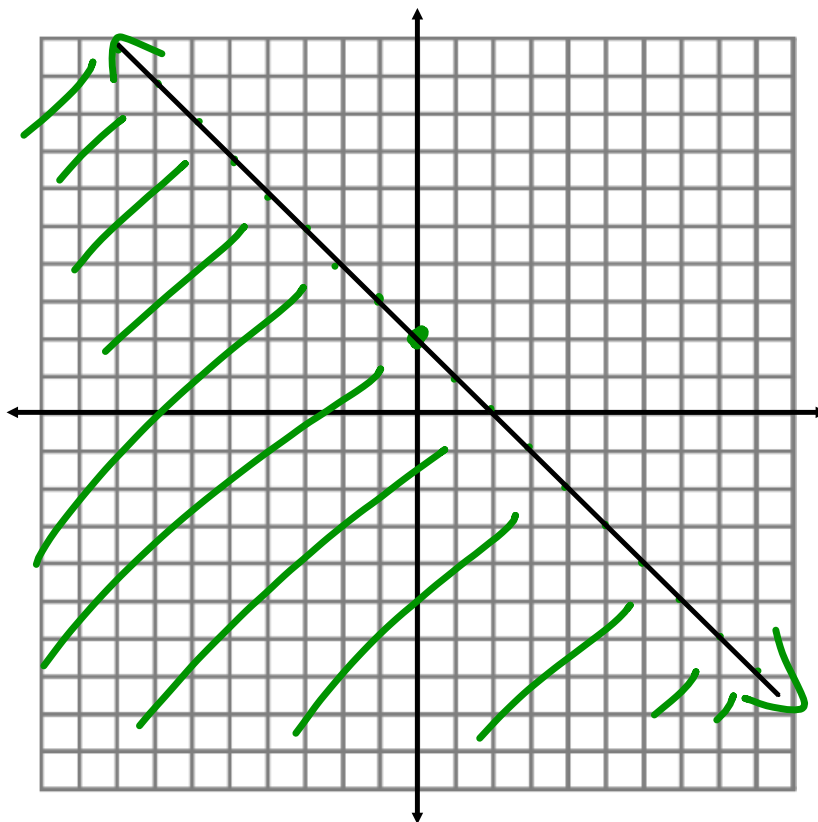
Solve and graph.

$$\begin{array}{r} -3 < n + 5 < 7 \\ -5 \quad -5 \quad -5 \\ \hline -8 < n < 2 \end{array}$$



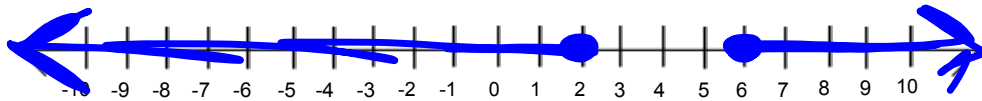
Graph.

$$y \leq -x + 2$$



Solve and graph.

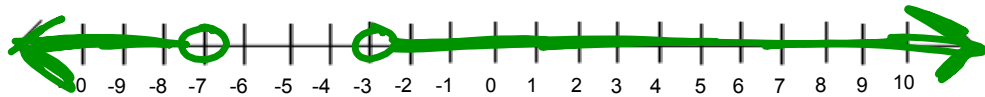
$$\begin{array}{r} h - 4 \geq 2 \quad \text{or} \quad 4 - h \geq 2 \\ \underline{+4 \quad +4} \qquad \qquad \underline{-4 \quad -4} \\ h \geq 6 \quad \text{or} \quad -h \geq -2 \\ \qquad \qquad \qquad \underline{-1 \quad -1} \\ \qquad \qquad \qquad h \leq 2 \end{array}$$



Solve and graph.

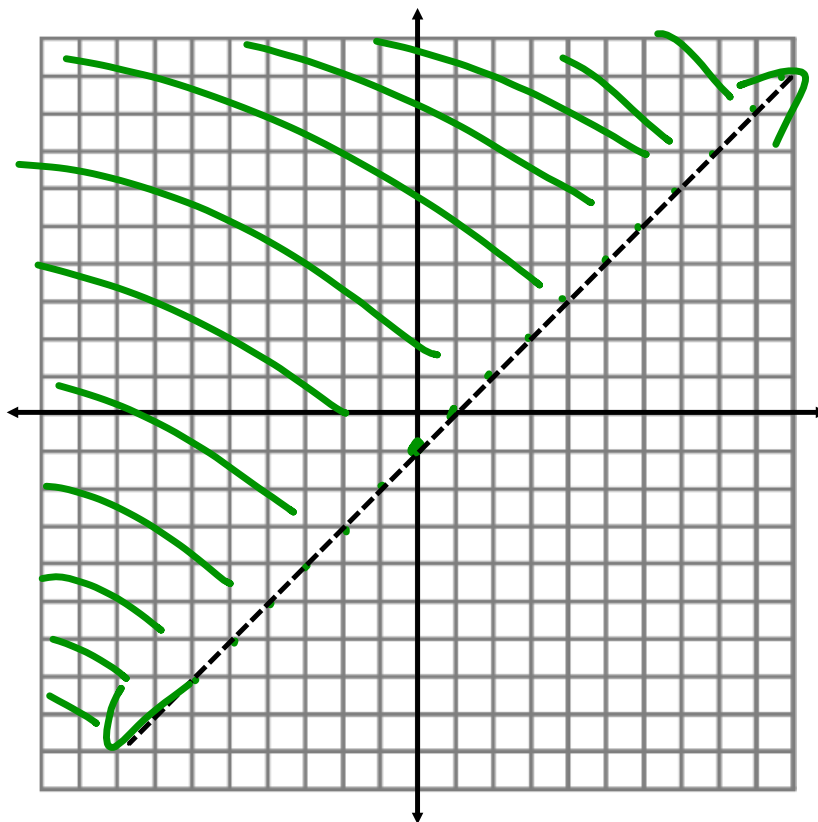
$$|y + 5| > 2$$

$$y + 5 > 2 \quad \text{or} \quad y + 5 < -2$$
$$y > -3 \quad \text{or} \quad y < -7$$



Graph.

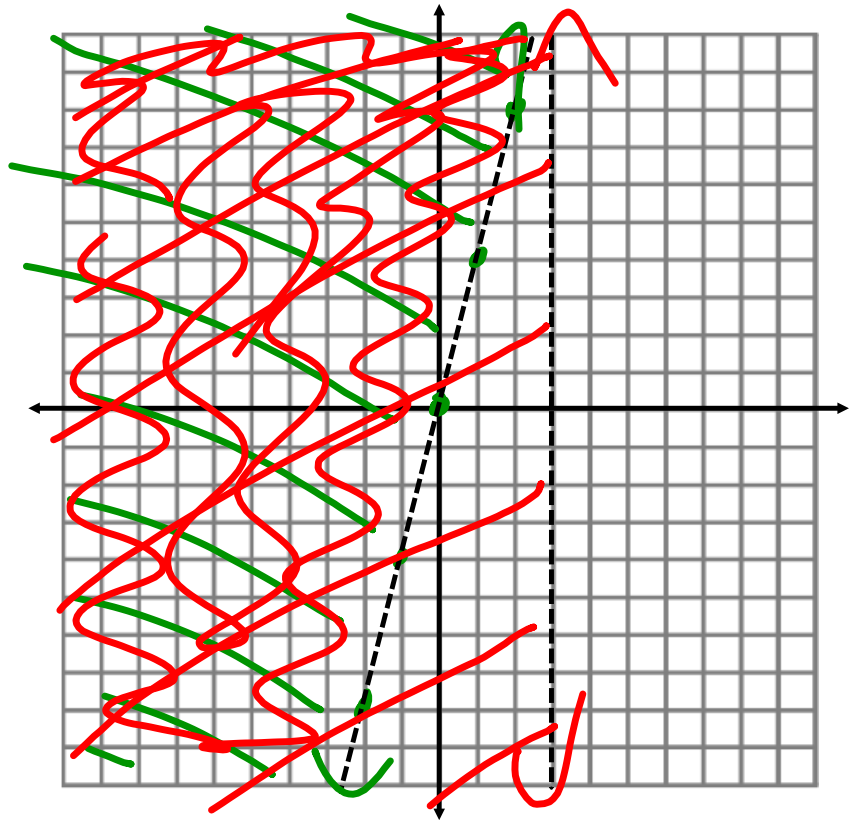
$$y > x - 1$$



Graph.

$$y > 4x$$

$$x < 3$$



Solve and graph.

$$\underset{-9}{9} - |3 - b| \geq \underset{-9}{2}$$

$$\frac{-|3-b| \geq -7}{-1} \quad \frac{-7}{-1}$$

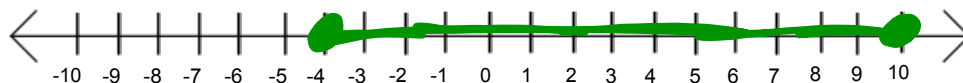
$$|3-b| \leq 7$$

$$3-b \leq 7 \text{ and } 3-b \geq -7$$

$$\frac{-7 \leq 3-b \leq 7}{-3} \quad \frac{-3}{-3}$$

$$\frac{-10 \leq -b \leq 4}{-1} \quad \frac{-4}{-1}$$

$$10 \geq b \geq -4$$



Jack wants to buy a TV and some plants for his house. The TV costs \$590 and each plant costs \$40. How many plants can he buy if he wants to spend less than \$830?

$$\begin{array}{r} 590 + 40p < 830 \\ - 590 \qquad \qquad - 590 \\ \hline \end{array}$$

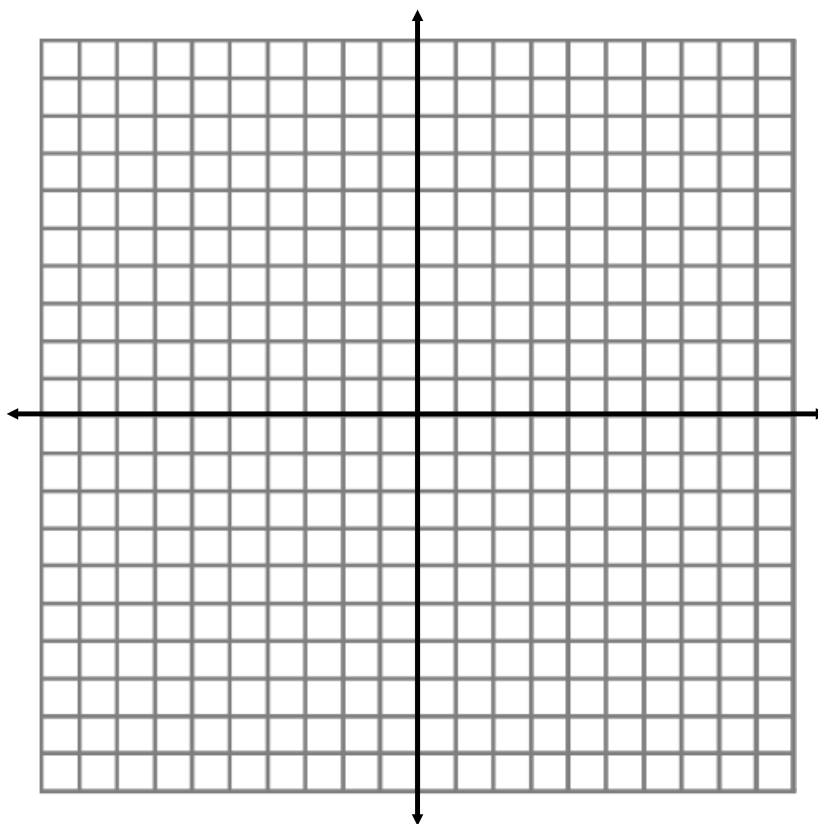
at most
5 plants

$$\begin{array}{r} 40p < 240 \\ \frac{40}{40} \qquad \frac{240}{40} \\ \hline p < 6 \end{array}$$

less than
6 plants

Graph.

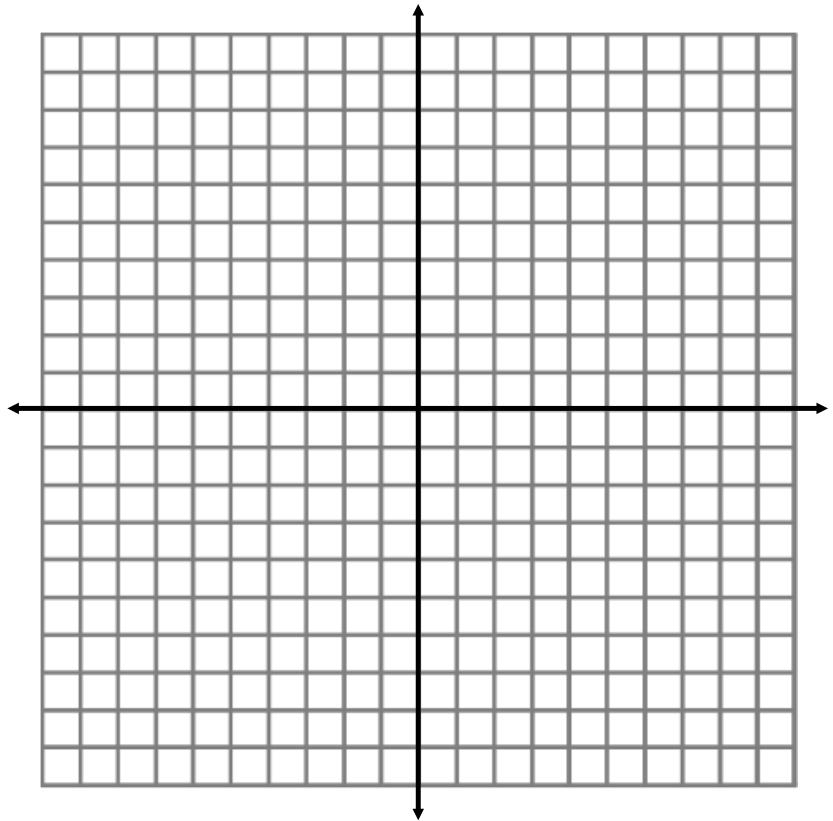
$$y \geq -5x - 1$$



Graph.

$$y < x + 3$$

$$y > 3 - x$$



Sam earns \$600 per week in base pay plus a 15% commission on her sales. What must her sales be if she wants to make no less than \$735 this week?

Solve and graph.

$$2x - 2 \leq -8 \text{ or } 8 < 2x - 2$$



Solve and graph.

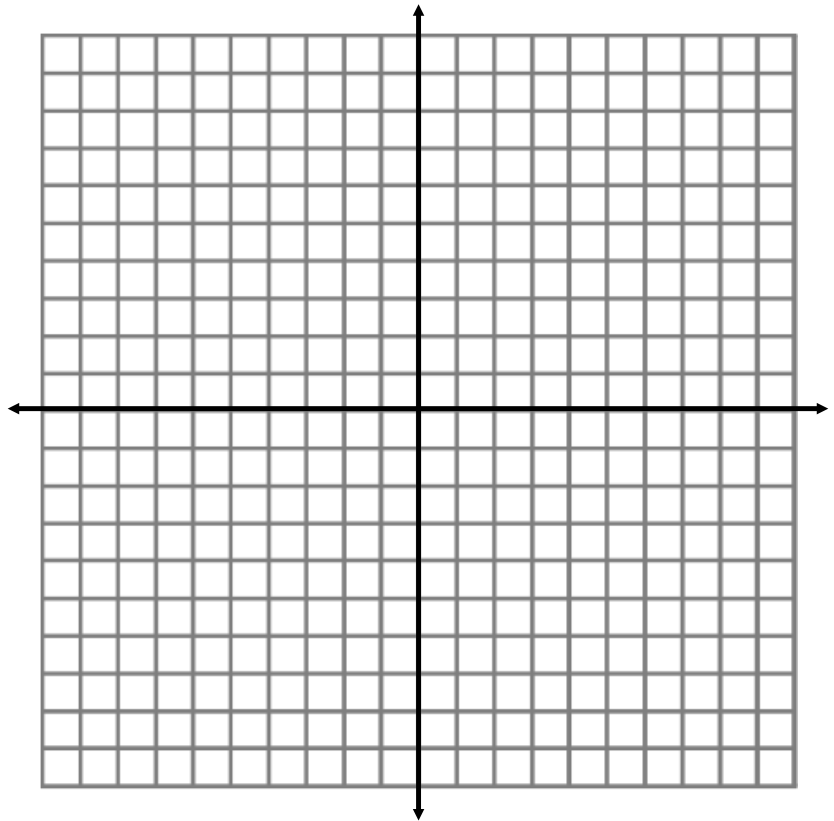
$$-6 < -6 + w \text{ and } -6 + w \leq -2$$



Graph.

$$x + y > 2$$

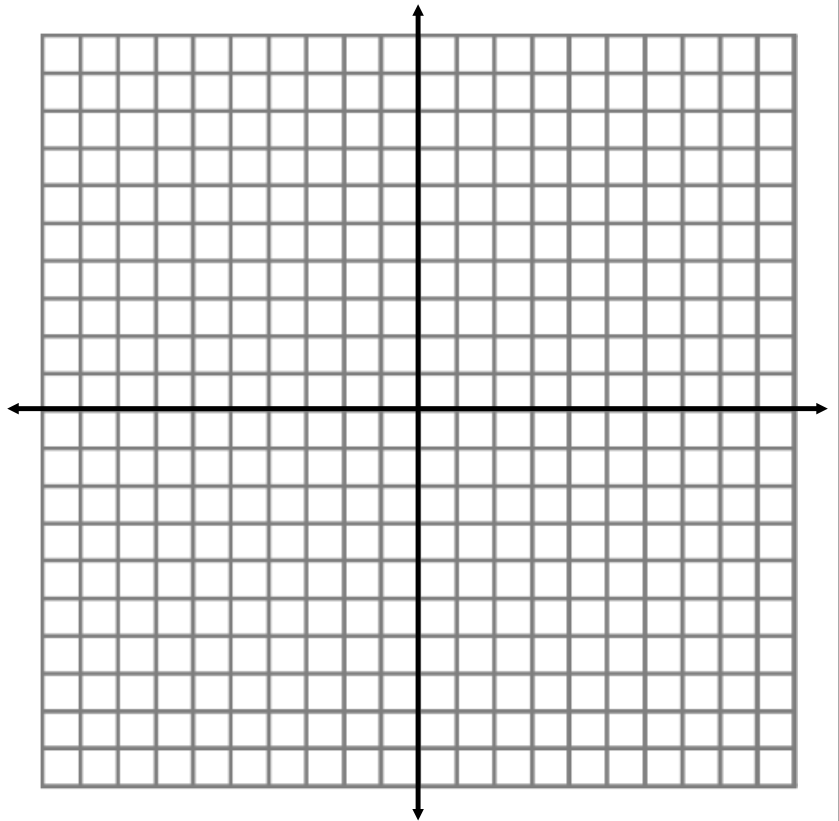
$$x - y < 6$$



Graph.

$$3x - 4y \leq 0$$

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



John has 32 dimes and quarters worth more than \$5.60. What is the minimum number of quarters than John has?

March 14, 2022

