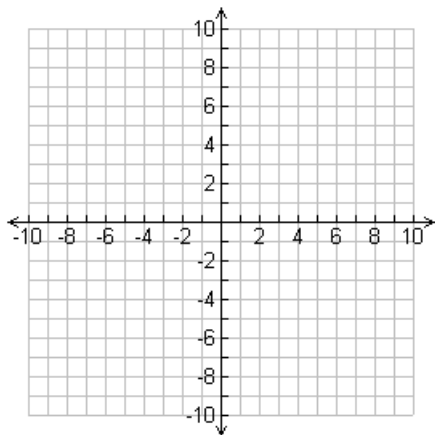
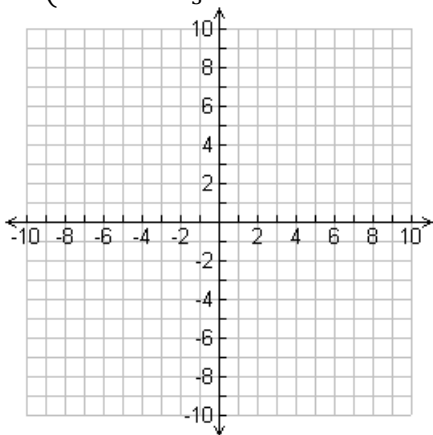


Graphing Systems of Equations and Inequalities Classwork and Homework

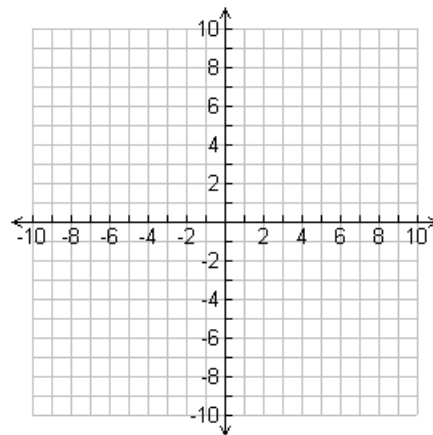
1) $\begin{cases} y = 2x - 4 \\ x + 2y = 12 \end{cases}$



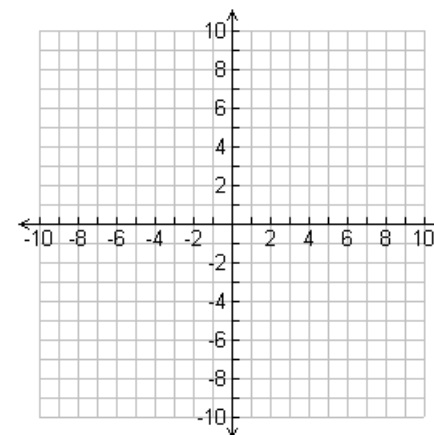
2) $\begin{cases} y = -\frac{1}{3}x + 2 \\ y + 4 = -\frac{4}{3}x \end{cases}$



3) $\begin{cases} y = \frac{1}{2}x - 2 \\ -x + 2y - 6 = 0 \end{cases}$

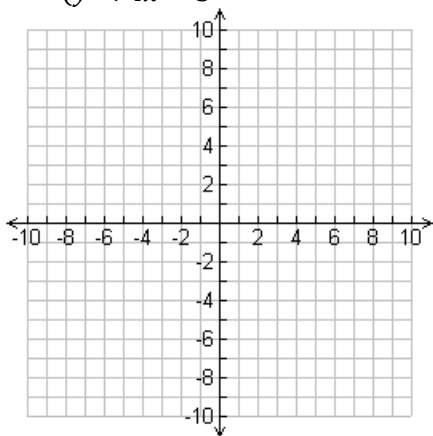


4) $\begin{cases} y = -3x + 1 \\ 12x + 4y = 4 \end{cases}$



Graph each system of linear inequalities. a. Give two ordered pairs that are solutions. b. Give two ordered pairs that are not solutions.

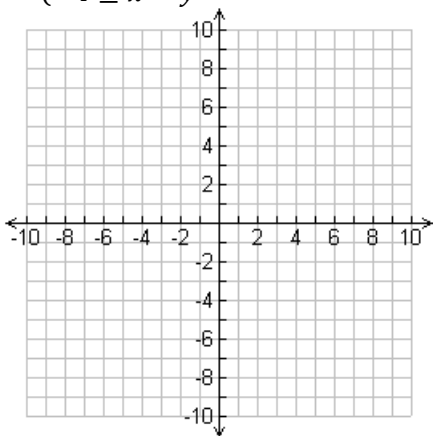
5) $\begin{cases} y > 4x + 2 \\ y < 4x - 3 \end{cases}$



a. _____

b. _____

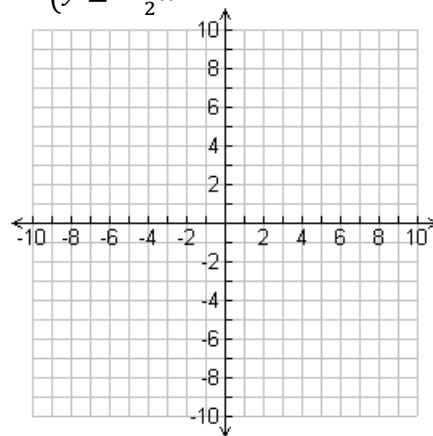
6) $\begin{cases} y - x > -2 \\ -4 \leq x - y \end{cases}$



a. _____

b. _____

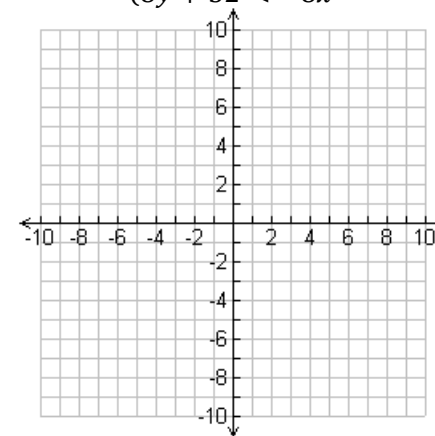
7) $\begin{cases} x \geq 2 \\ y \leq -\frac{1}{2}x - 2 \end{cases}$



a. _____

b. _____

8) $\begin{cases} -5y \leq 3x \\ 8y + 32 < -8x \end{cases}$



a. _____

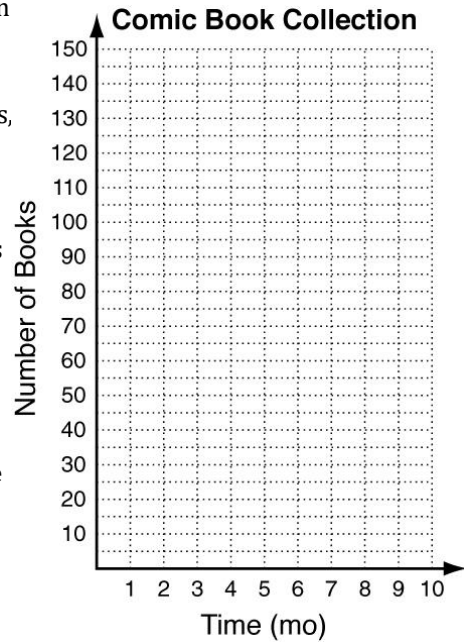
b. _____

9) Tom currently has 5 comic books in his collection and has subscribed to receive 5 new comic books each month. His uncle has 145 comic books, but sends 5 to each of his 3 nieces each month.

a. Write a system of equations for this situation.

b. Graph the system of equations.

c. In how many months will they have the same number of comic books? How many books will that be?

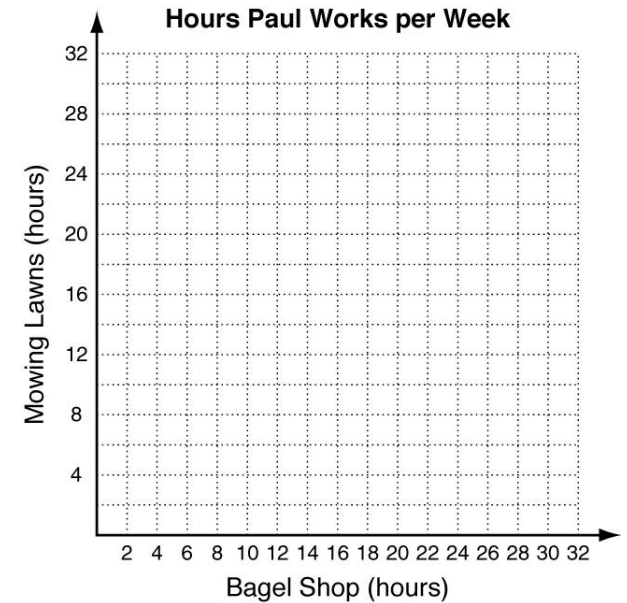


10) Paul earns \$7 per hour at the bagel shop and \$12 per hour mowing lawns. Paul needs to earn at least \$120 per week, but he must work less than 30 hours per week.

a. Write a system of linear inequalities that describes this situation.

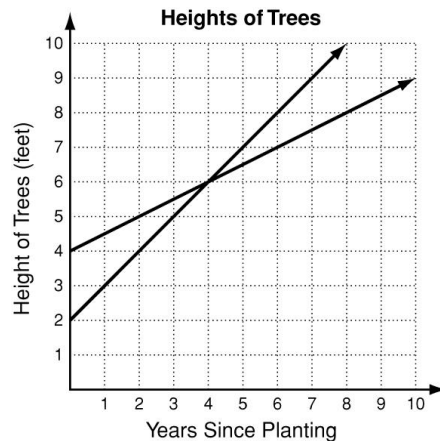
b. Graph the system.

c. What is a combination of hours that Paul can work to fulfill all criteria?



11) How many years after planting will the trees be the same height?

- A 1 years C 4 years
B 2 years D 6 years



12) Which system of equations is represented by the graph?

- A $\begin{cases} y = x + 2 \\ y = 0.5x + 2 \end{cases}$ C $\begin{cases} y = 2x + 4 \\ y = x + 4 \end{cases}$
B $\begin{cases} y = x + 2 \\ y = 0.5x + 4 \end{cases}$ D $\begin{cases} y = 4x - 2 \\ y = 2x + 2 \end{cases}$

13) Which system of linear inequalities represents the graph?

- A $\begin{cases} x + y \leq 15 \\ y \geq 12 - \frac{4}{3}x \end{cases}$ C $\begin{cases} x + y \geq 15 \\ y \geq \frac{4}{3}x - 12 \end{cases}$
B $\begin{cases} y \leq x + 15 \\ y \geq 12 - \frac{4}{3}x \end{cases}$ D $\begin{cases} y \leq 15 - x \\ y \leq \frac{4}{3}x - 12 \end{cases}$

14) If 6 buffet tables are built, which can NOT be the number of dining tables built?

- A 4 C 8
B 6 D 10

