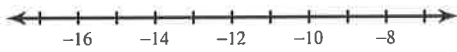


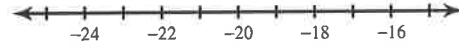
Inequalities and Systems of Inequalities Workday

Solve each inequality and graph its solution.

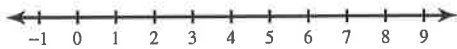
1) $-4(n - 10) \geq 76$



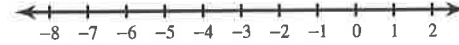
2) $76 \geq -4(m + 1)$



3) $-8(2x + 1) - 8 < -8x - 40$



4) $4(1 + 6x) \leq -8x + 4$

Is the point $(-2, 0)$ a solution to the system of inequalities?

5) $y \leq -\frac{5}{2}x - 3$

$y \leq \frac{1}{2}x + 3$

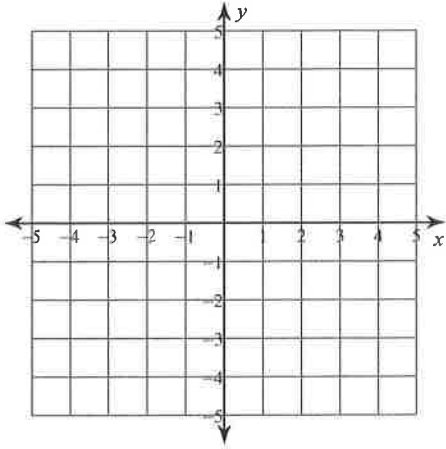
Is the point $(2, 1)$ a solution to the system of inequalities?

6) $x + 3y > -3$

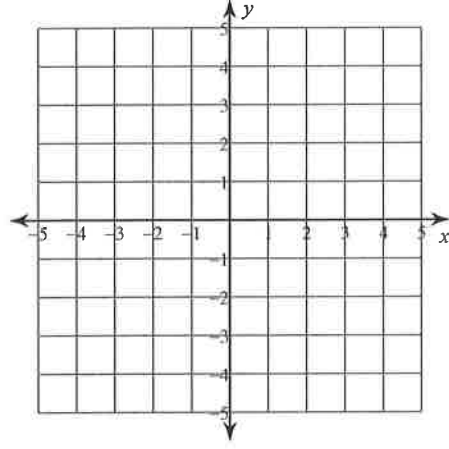
$5x + 3y < 9$

Sketch the solution to each system of inequalities.

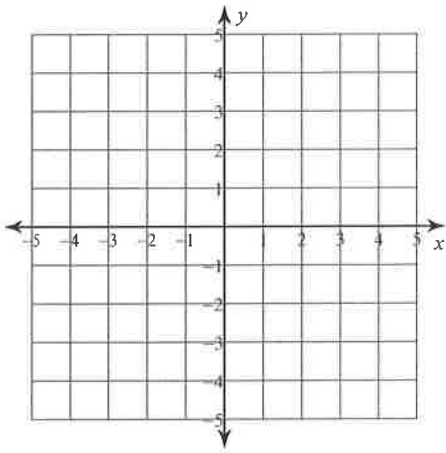
7) $y \leq 2x + 3$
 $y \geq \frac{2}{3}x - 1$



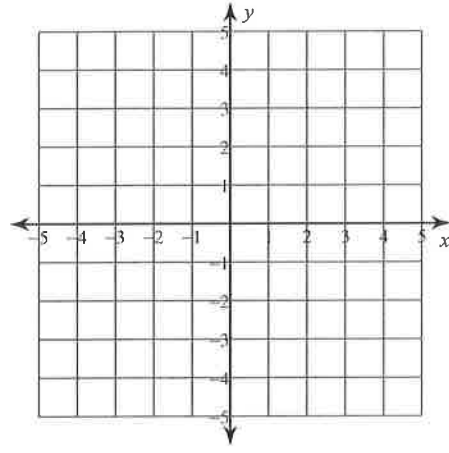
8) $y > -\frac{1}{2}x - 2$
 $y \geq -3x + 3$



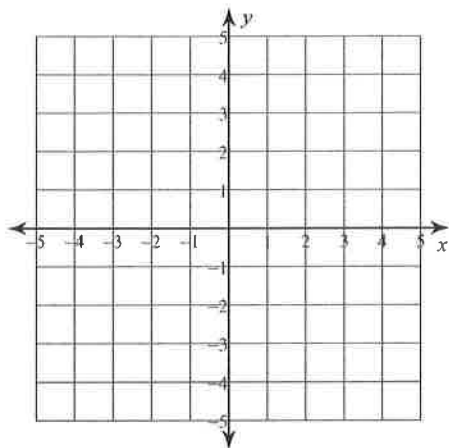
9) $y \geq 2x + 3$
 $y > -3x - 2$



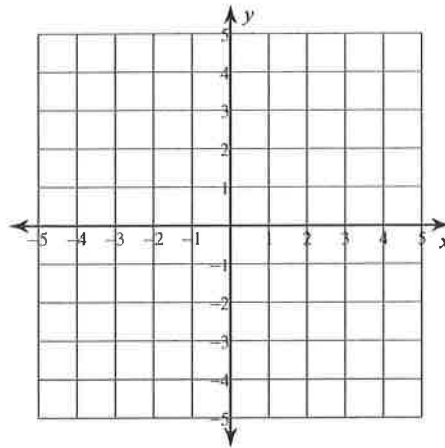
10) $y \leq -x - 2$
 $y < -6x + 3$



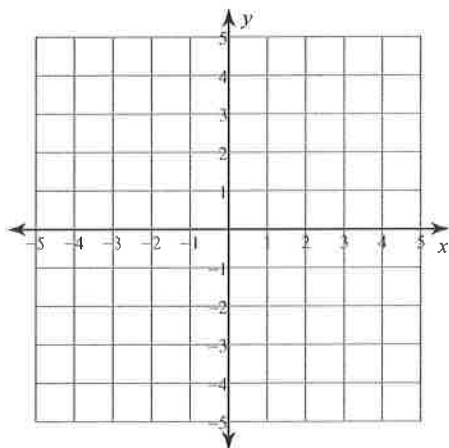
$$11) \begin{cases} x - 2y < -4 \\ 5x - 2y \geq 4 \end{cases}$$



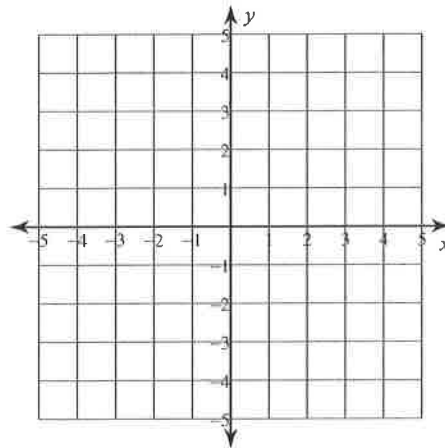
$$12) \begin{cases} x - y > -2 \\ 6x - y \geq 3 \end{cases}$$



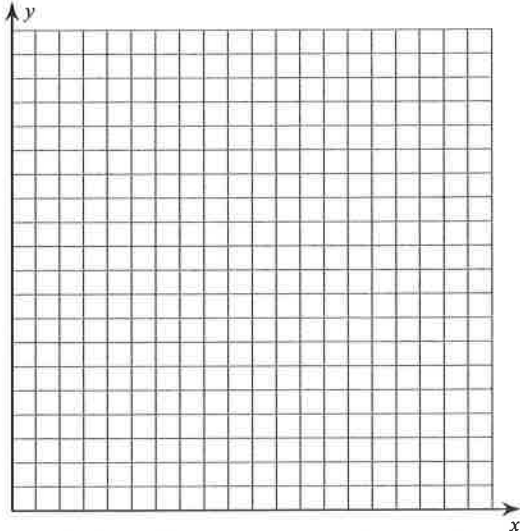
$$13) \begin{cases} x - y \leq -2 \\ 5x - y > 2 \end{cases}$$



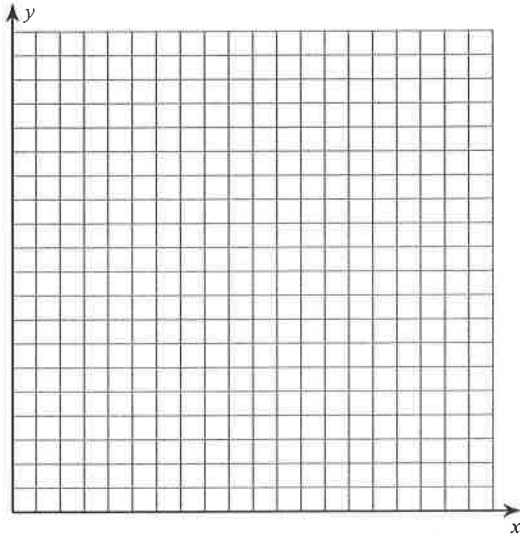
$$14) \begin{cases} x + 3y \leq -6 \\ 4x + 3y < 3 \end{cases}$$



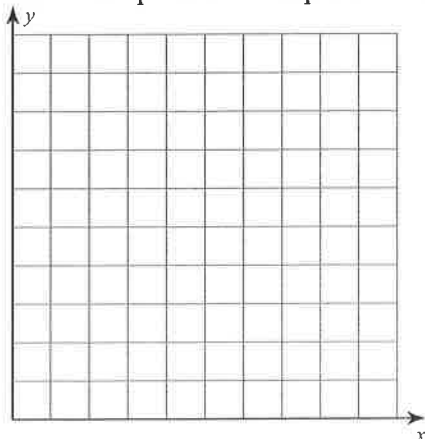
- 15) Tony is doing a project for his agriculture class and is planting a small farm with corn and beans. Corn costs \$2 per acre to plant and beans cost \$4 per acre to plant. Tony has a budget of \$48 for his small farm. In order to get the grade he needs, Tony has to plant at least 12 acres of all of his crops combined. Write a system of inequalities to represent Tony's situation and graph the solutions.



- 16) Sandy is selling cookies and cupcakes for a fundraiser. She makes \$2 for every cupcake and \$1 for every cookie that she sells. She wants to earn at least \$10 on her first day. She is limited on supplies so she can sell no more than 8 total items in a day. Write a system of linear inequalities and graph the results.

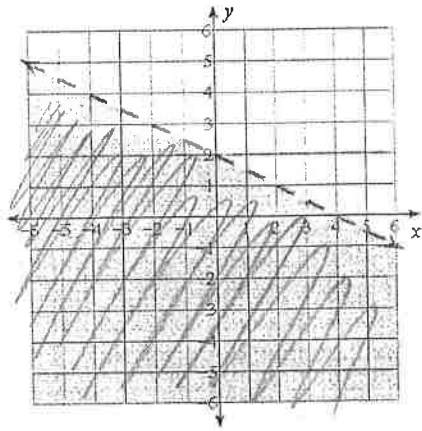


- 17) Vance has \$20 and wants to buy food and treats for his dog. Dog food costs \$5 per pound and treats are \$2 per pound. He wants to buy at least 5 pounds worth of food and treats total. Write a system of linear inequalities to represent the situation and graph the system.

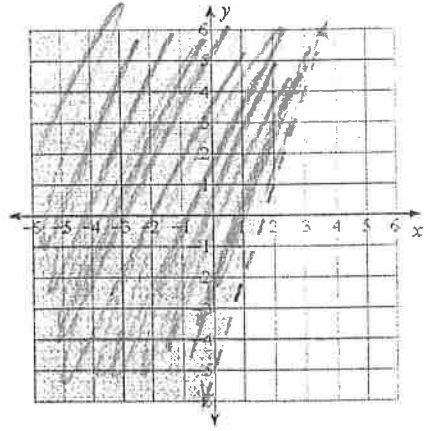


Write the linear inequality represented by the graph.

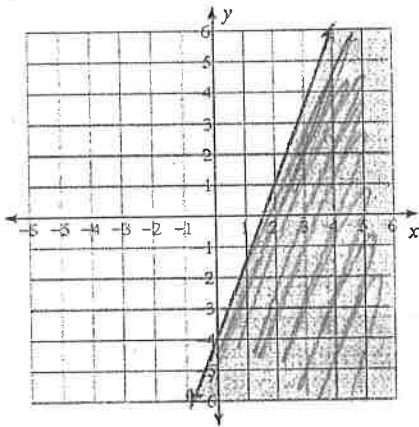
1.



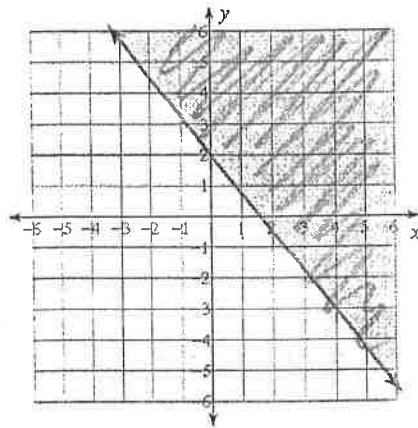
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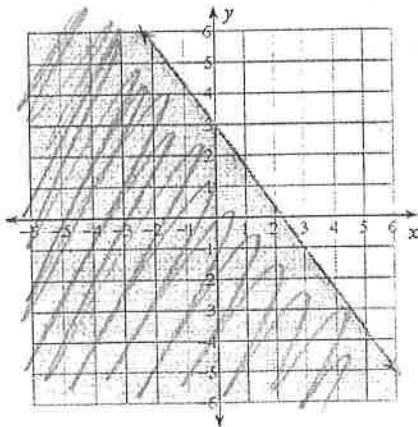
3.



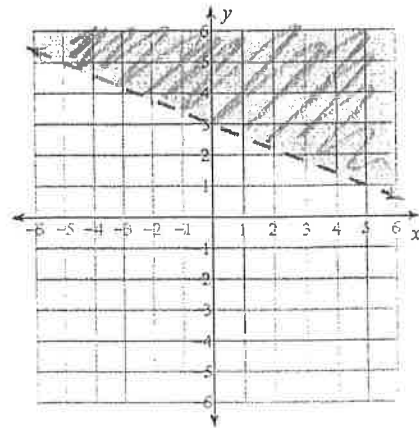
4.



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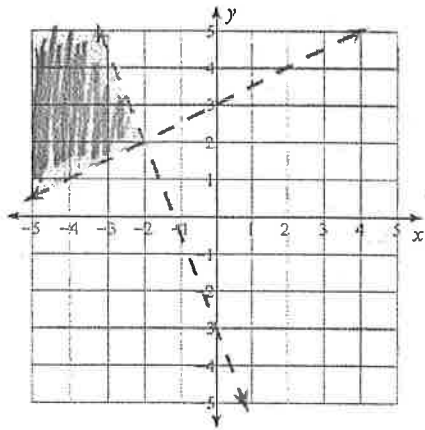


6.

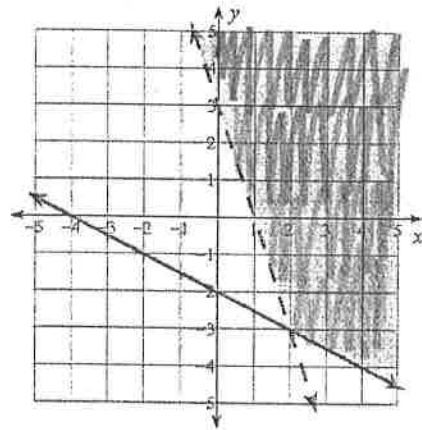


Write the system of linear inequalities represented by the graph.

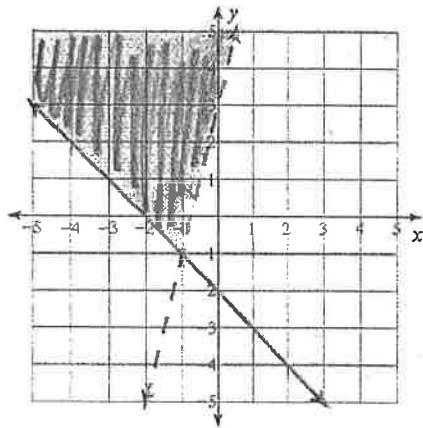
7.



8.



9.



10.

