

1. In the graph of the system $y > 9x + 6$ and $y < -3x + 2$, would the boundary lines be solid or dashed? Why?

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- ☐ A. The boundary lines would be dashed because they are included as part of the solution of the system whenever the system of inequalities contains only $<$ or $>$ symbols.
- ☐ B. The boundary lines would be solid because they are included as part of the solution of the system whenever the system of inequalities contains only $<$ or $>$ symbols.
- ☐ C. The boundary lines would be solid because they are not included in the solution of the system whenever the system of inequalities contains only $<$ or $>$ symbols.
- ☐ D. The boundary lines would be dashed because they are not included in the solution of the system whenever the system of inequalities contains only $<$ or $>$ symbols.

2. Stephanie wanted to know if the point $(3, -4)$ lies in the region that is a solution for $y < -2x + 3$ and $y > 5x - 3$. How could she determine if this is true?

How could Stephanie determine if the point $(3, -4)$ lies in the region that is a solution for $y < -2x + 3$ and $y > 5x - 3$?

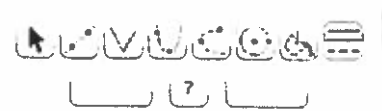
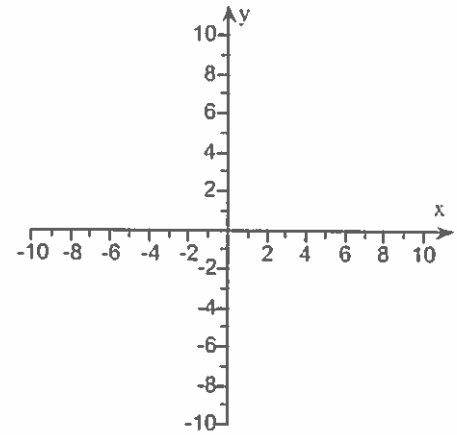
- ☐ A. She could determine if the point lies on either the line $y = -2x + 3$ or the line $y = 5x - 3$. If so, the point lies in the region that is a solution. Otherwise, it does not.
- ☐ B. She could substitute 3 for x and -4 for y in each inequality. If the point satisfies both inequalities, it lies in the region that is a solution. Otherwise, it does not.
- ☐ C. She could determine if the lines $y = -2x + 3$ and $y = 5x - 3$ intersect at $(3, -4)$. If so, the point lies in the region that is a solution. Otherwise, it does not.
- ☐ D. She could substitute 3 for x and -4 for y in each inequality. If the point satisfies at least one inequality, it lies in the region that is a solution. Otherwise, it does not.

3. Graph the solution of the following system.

$$y \geq 5x - 1$$

$$x + y \leq 2$$

Use the graphing tool to graph the system.

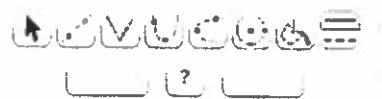
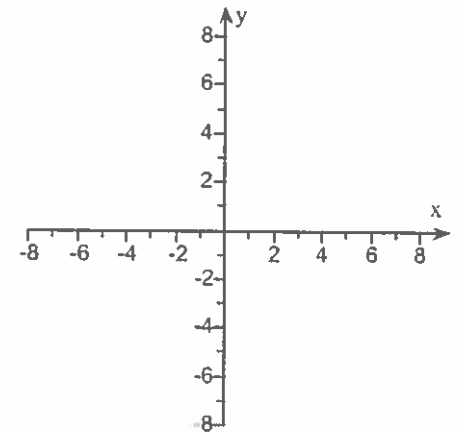


4. Graph the solution of the following system.

$$y \geq -2x$$

$$y \geq 4x + 3$$

Use the graphing tool to graph the system.

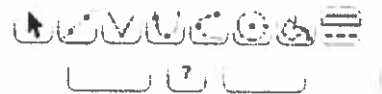
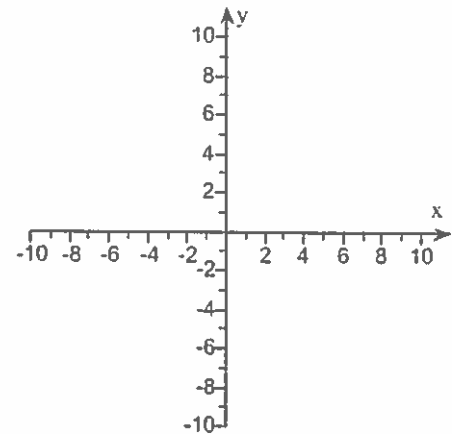


5. Graph the solution of the following system.

$$y \geq 4x - 1$$

$$y \leq \frac{5}{6}x$$

Use the graphing tool to graph the system.

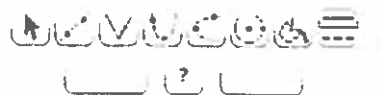
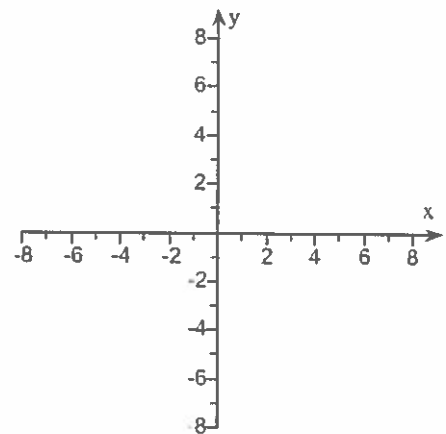


6. Graph the solution of the following system.

$$x - y \geq -5$$

$$-4x - y \leq 1$$

Use the graphing tool to graph the system.

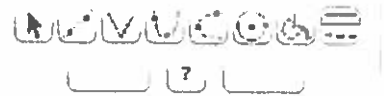
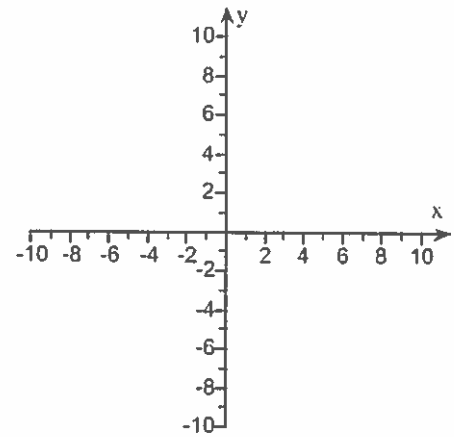


Graph the solution of the following system.

$$x + 3y < 15$$

$$y < 5$$

Use the graphing tool to graph the system.

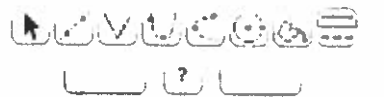
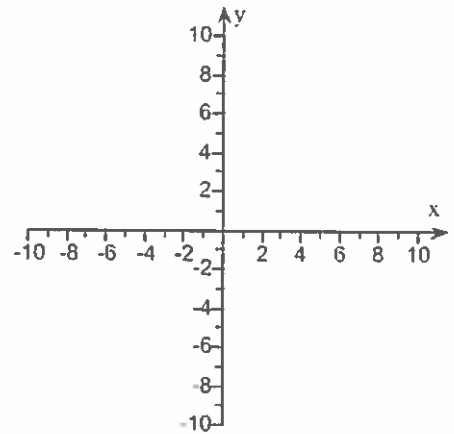


8. Graph the solution of the following system.

$$y < -3$$

$$x > 4$$

Use the graphing tool to graph the system.

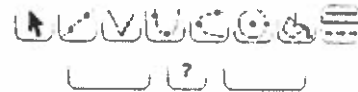
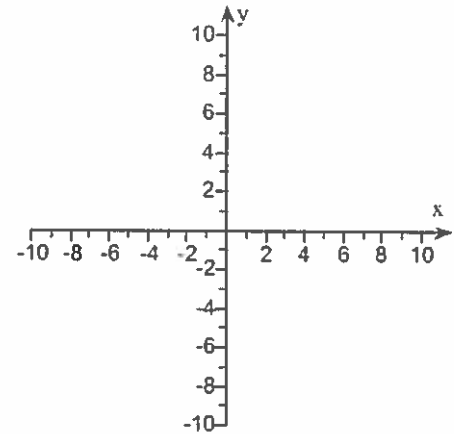


9. Graph the solution of the following system.

$$x - 4y \geq -4$$

$$3x + y \leq 6$$

Use the graphing tool to graph the system.



10. Graph the solution of the following system.

$$3x + 7y < 21$$

$$3x + 7y > -21$$

Use the graphing tool to graph the system.

