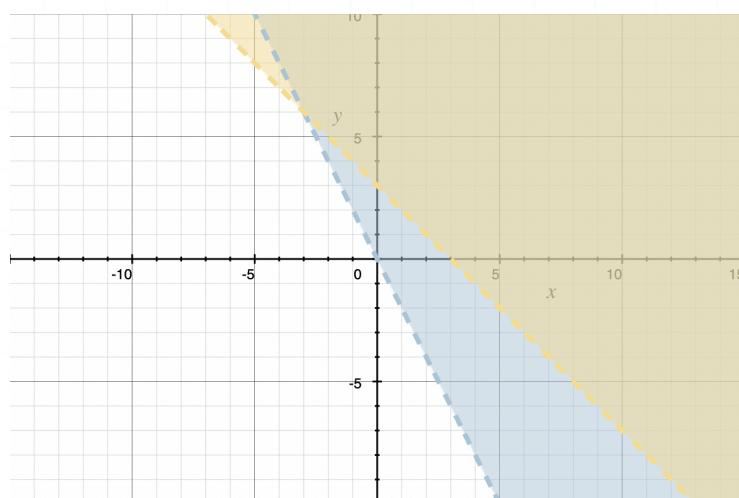


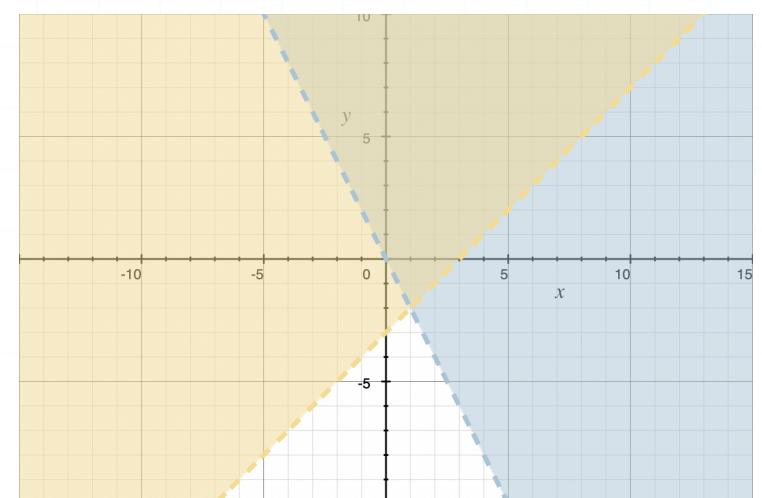
**Topic:** Systems of linear inequalities**Question:** Graph the solution of the system of linear inequalities.

$$2x + y > 0$$

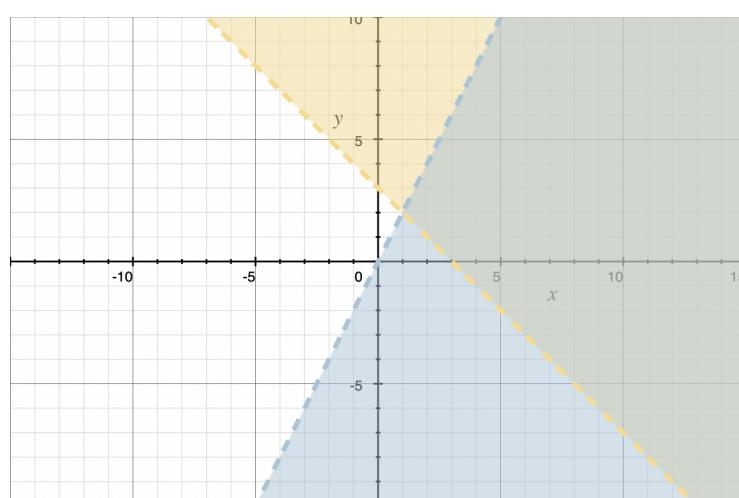
$$x - y < 3$$

**Answer choices:**

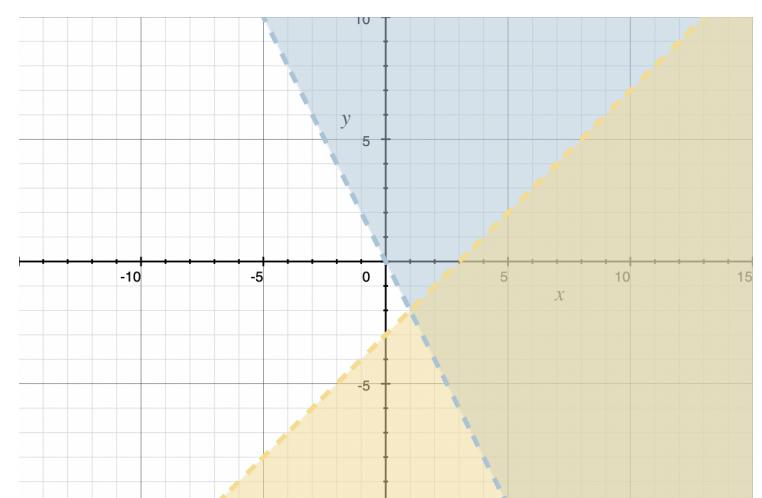
A



B



C



D

**Solution: B**

We need to find the boundary lines of each inequality by graphing their corresponding equations. We'll rewrite the corresponding equations in slope-intercept form.

$$2x + y = 0$$

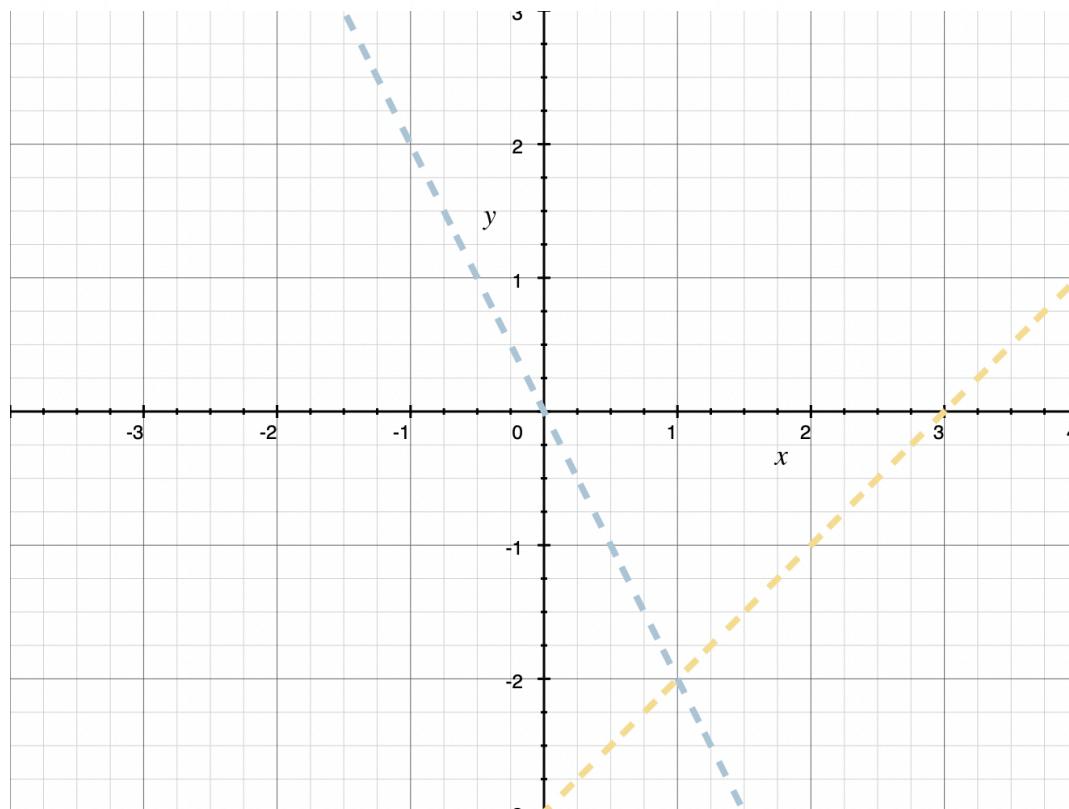
$$y = -2x$$

and

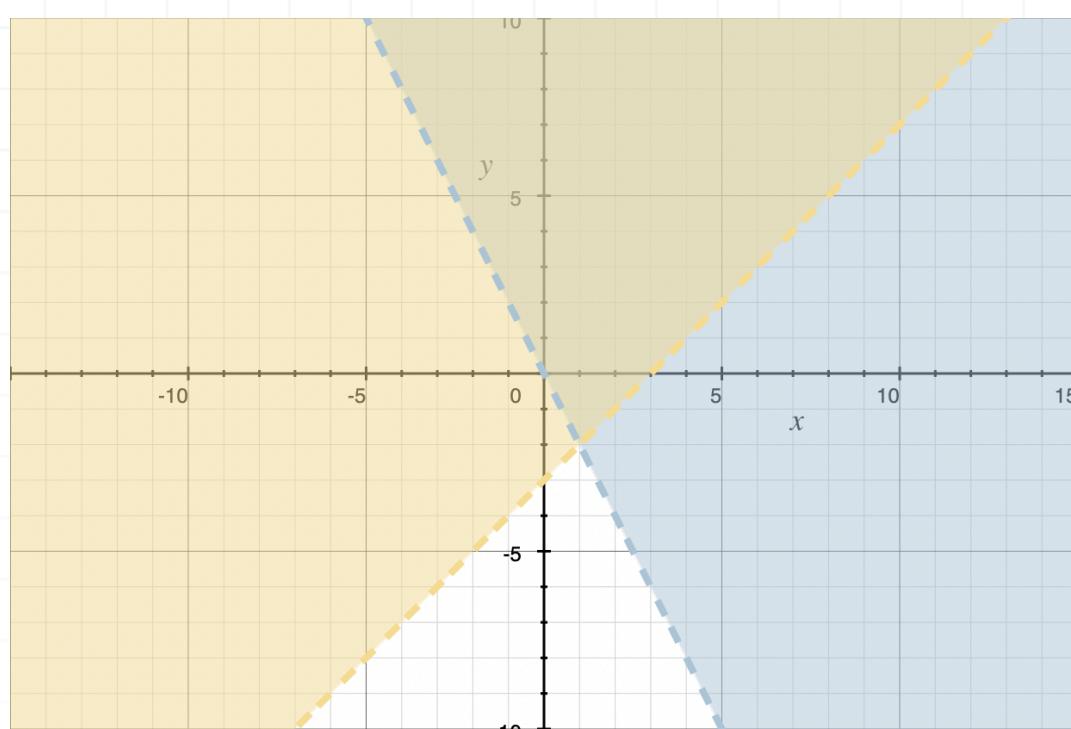
$$x - y = 3$$

$$y = x - 3$$

Because the inequalities are  $<$  and  $>$ , the lines should be dashed.



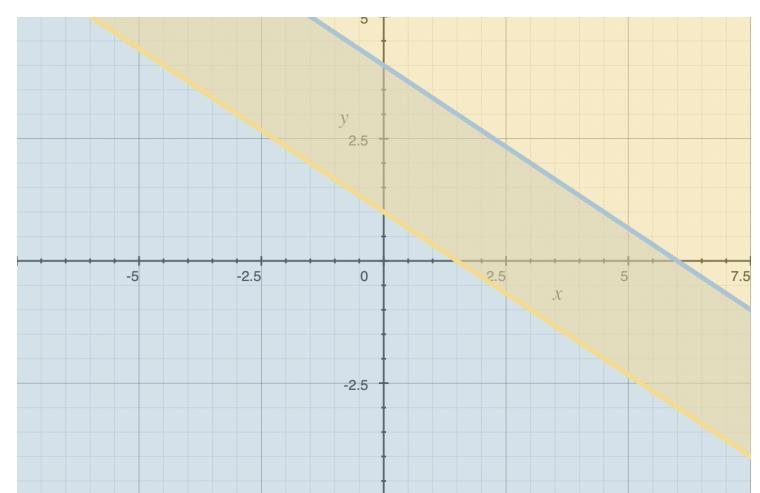
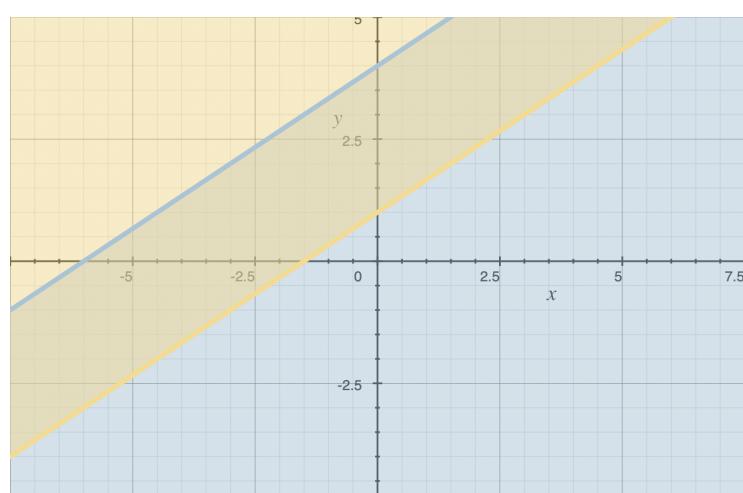
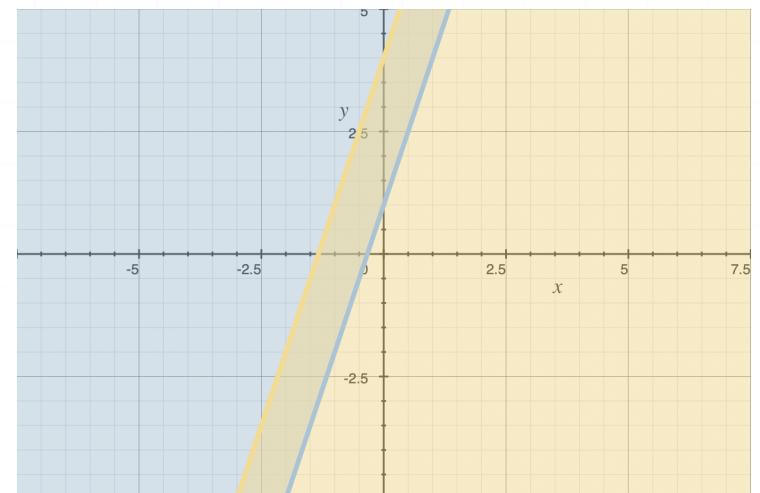
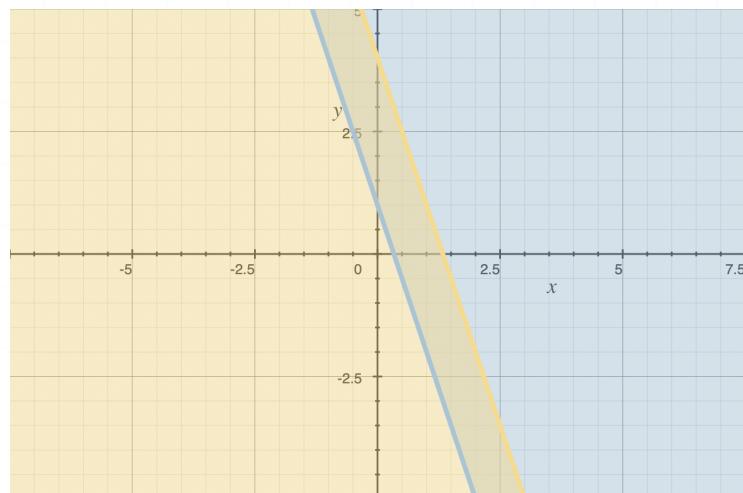
We need to shade above  $y = -2x$  and below  $y = x - 3$ , and the solution to the system of inequalities is



**Topic:** Systems of linear inequalities**Question:** Graph the solution of the system of linear inequalities.

$$3x + y \geq 1$$

$$3x + y \leq 4$$

**Answer choices:**

**Solution: A**

We need to find the boundary lines of each inequality by graphing their corresponding equations. We'll rewrite the corresponding equations in slope-intercept form.

$$3x + y = 1$$

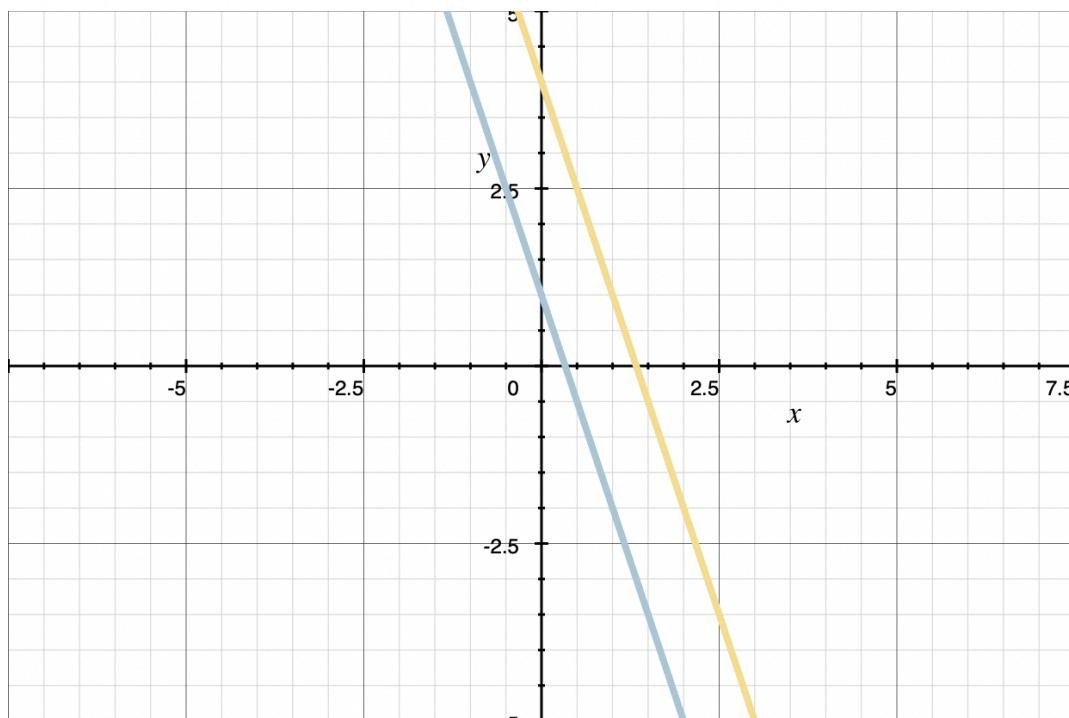
$$y = -3x + 1$$

and

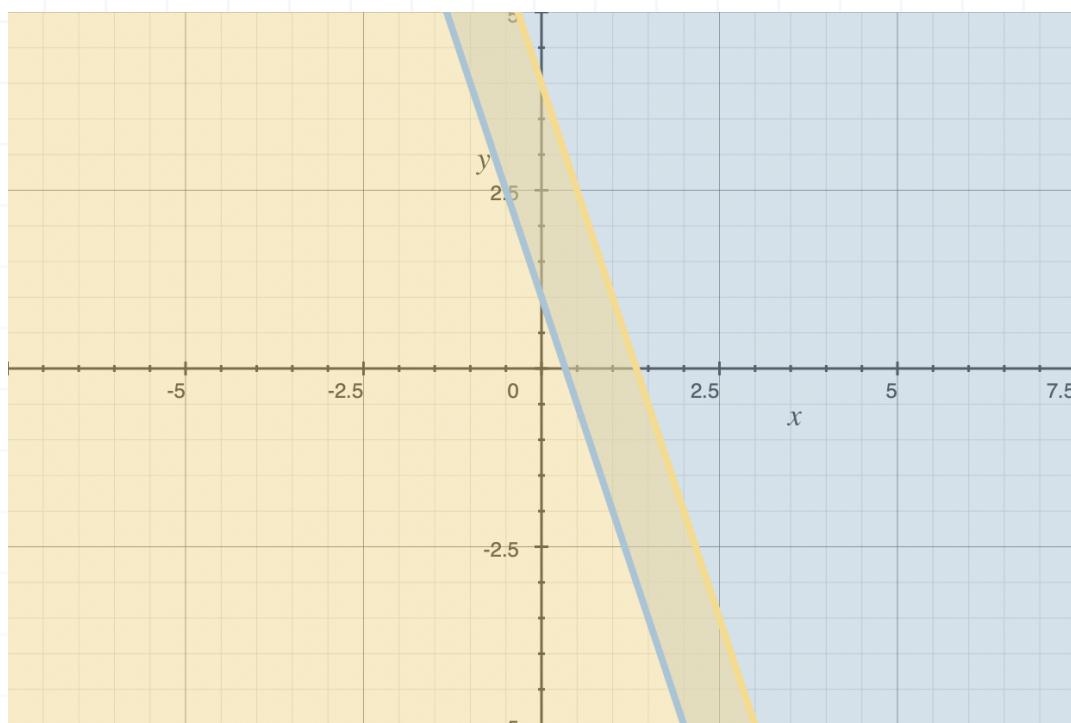
$$3x + y = 4$$

$$y = -3x + 4$$

Because the inequalities are  $\leq$  and  $\geq$ , the lines should be solid.



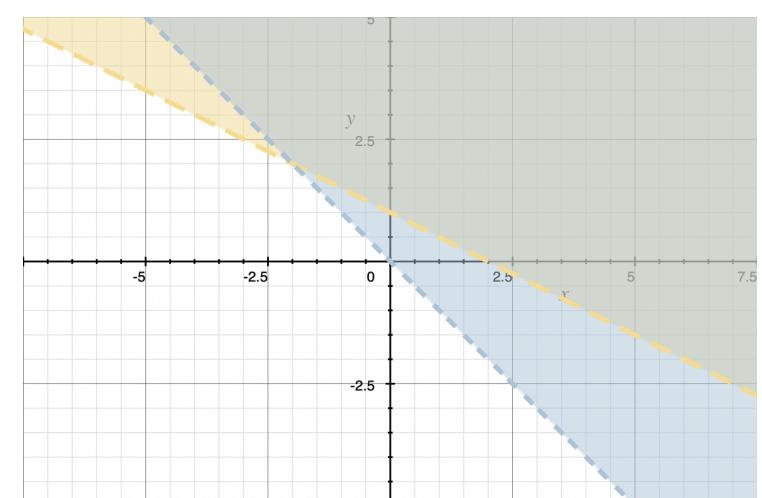
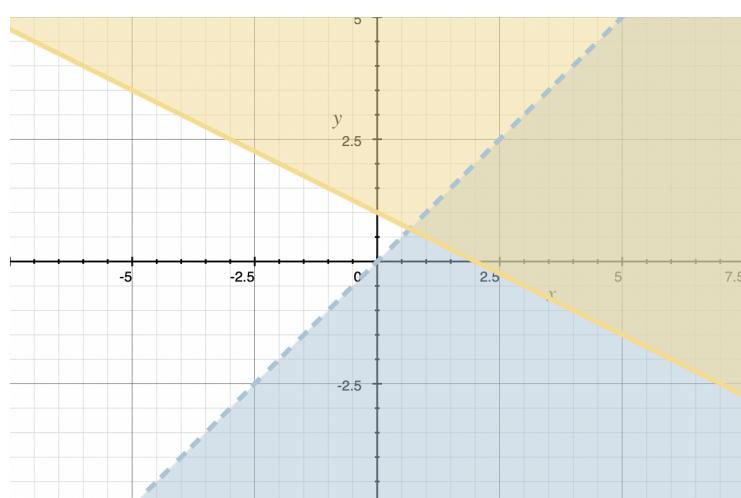
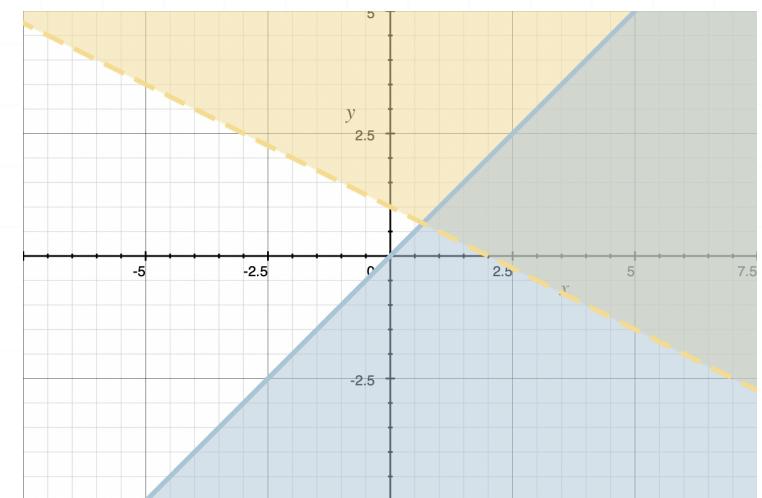
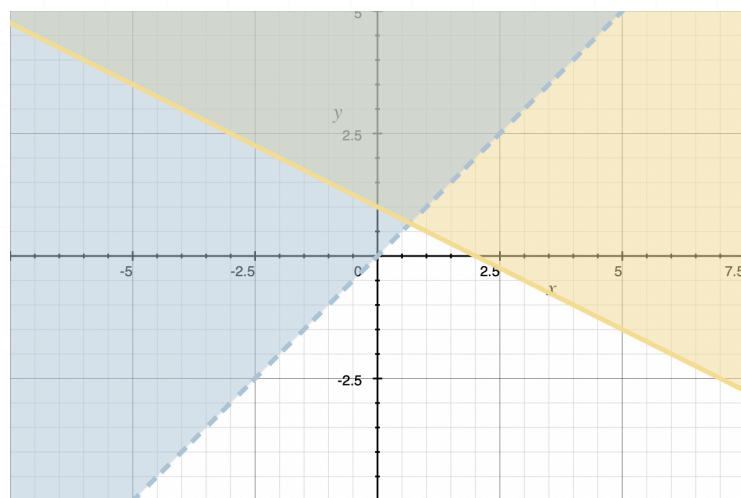
We need to shade above  $y = -3x + 1$  and below  $y = -3x + 4$ , and the solution to the system of inequalities is



**Topic:** Systems of linear inequalities**Question:** Graph the solution of the system of linear inequalities.

$$x > y$$

$$x + 2y \geq 2$$

**Answer choices:**

**Solution: C**

We need to find the boundary lines of each inequality by graphing their corresponding equations. We'll rewrite the corresponding equations in slope-intercept form.

$$x = y$$

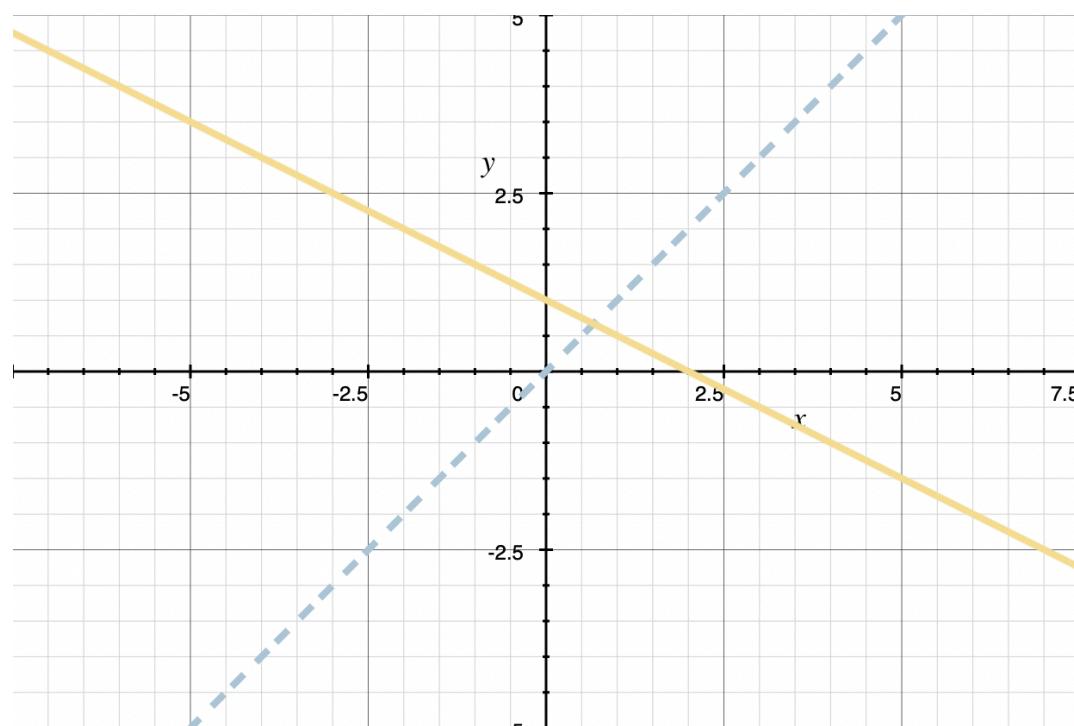
$$y = x$$

and

$$x + 2y = 2$$

$$y = -\frac{1}{2}x + 1$$

Because the inequalities are  $\geq$  and  $>$ , one line will be dashed and the other will be solid.



We need to shade below  $y = x$  and above  $y = -(1/2)x + 1$ , and the solution to the system of inequalities is

