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## Solving Systems of Linear Equations by Graphing - Step-by-Step Lesson

Solve this system of equations by graphing.  
First graph the equations and then determine the solution.

$$y = -3x + 5$$

$$x = 2$$

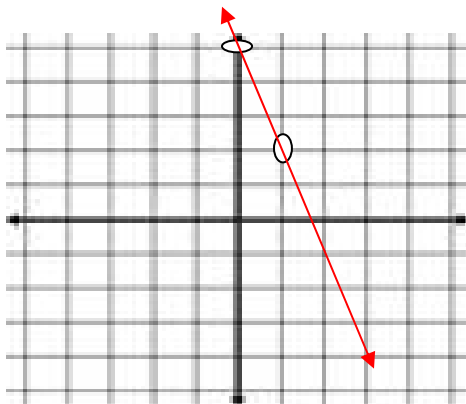
### Explanation:

The first equation is  $y = -3x + 5$

The y-intercept is 5. Plot the point (0, 5)

The slope is  $\frac{-3}{1}$ . Move down 3 and right 1 to find another point on the line.

Draw a line connecting them.

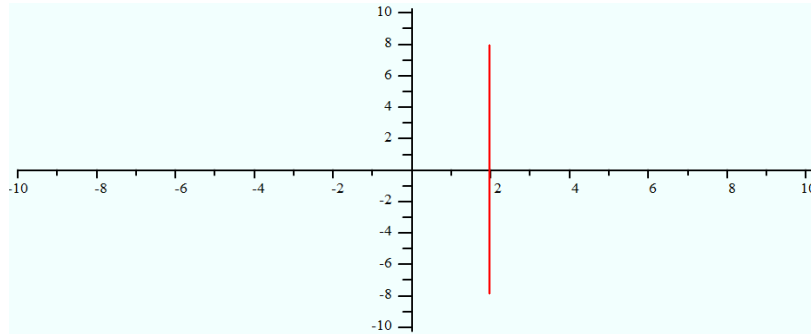


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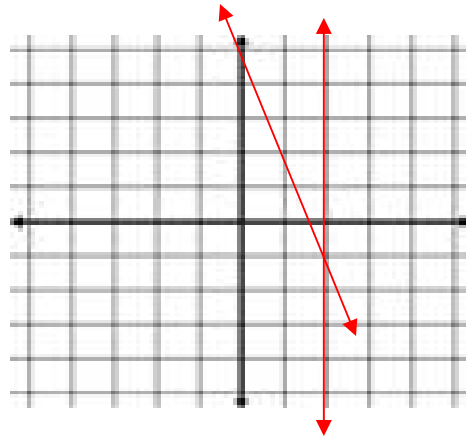
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The second equation is  $x = 2$ .

This equation tells you that every x-value is 2. Plot some points that have an x-value of 2, like  $(2, 0)$  and  $(2, 2)$ , and then draw a line connecting them.



Finally, identify the point of intersection.



The lines intersect at  $(2, -1)$ , so the solution to the system of equation is:

$(2, -1)$

