

Name _____

Date _____

Topic 5: Solving a system of linear equations graphically

Graph the two lines and find the point of intersection

Video Help 1: <https://learnzillion.com/lessons/154-solve-systems-of-equations-graphing-1>

Video Help 2: <https://learnzillion.com/lessons/156-solve-systems-of-equations-graphing-2>

Video Help 3: <http://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-systems-topic/cc-8th-systems-graphically/v/solving-systems-graphically>

1) Graph the system of equations and find the point of intersection:

$$2x + y = 8$$

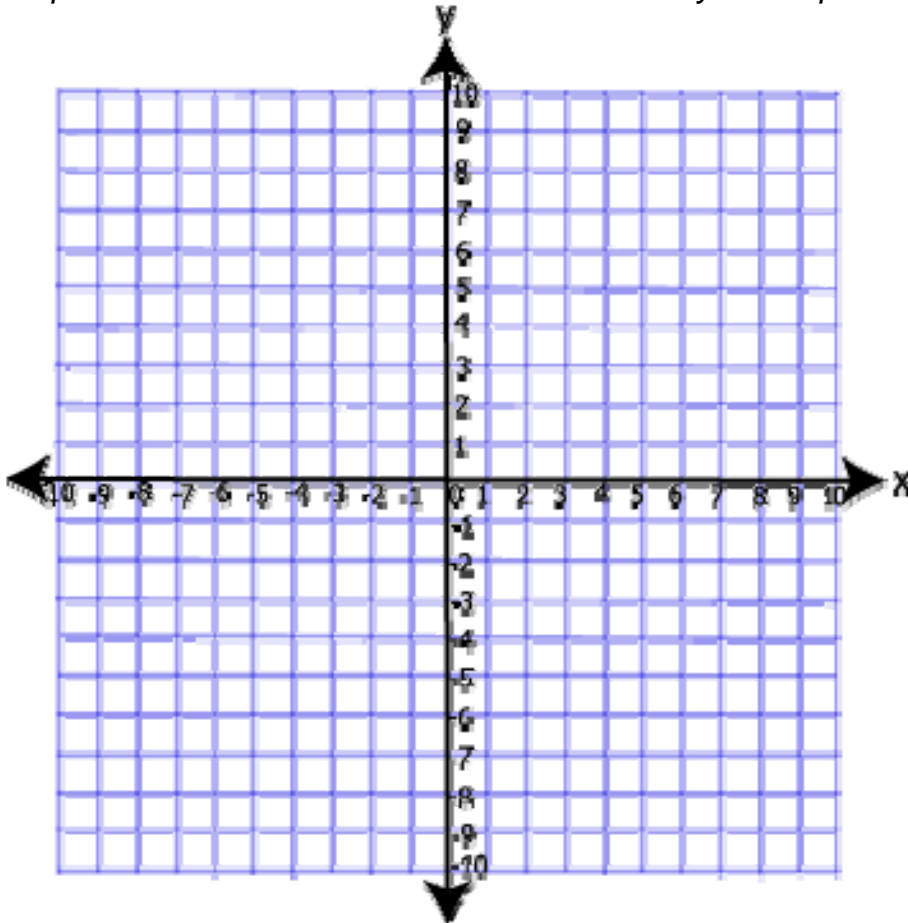
$$y - x = 2$$

Slope:

Slope:

y-intercept:

y-intercept:



Check to make sure that the point satisfies **both** equations.

$$2x + y = 8$$

$$y - x = 2$$

2) Graph the system of equations and find the point of intersection:

$$y + 2x = 5$$

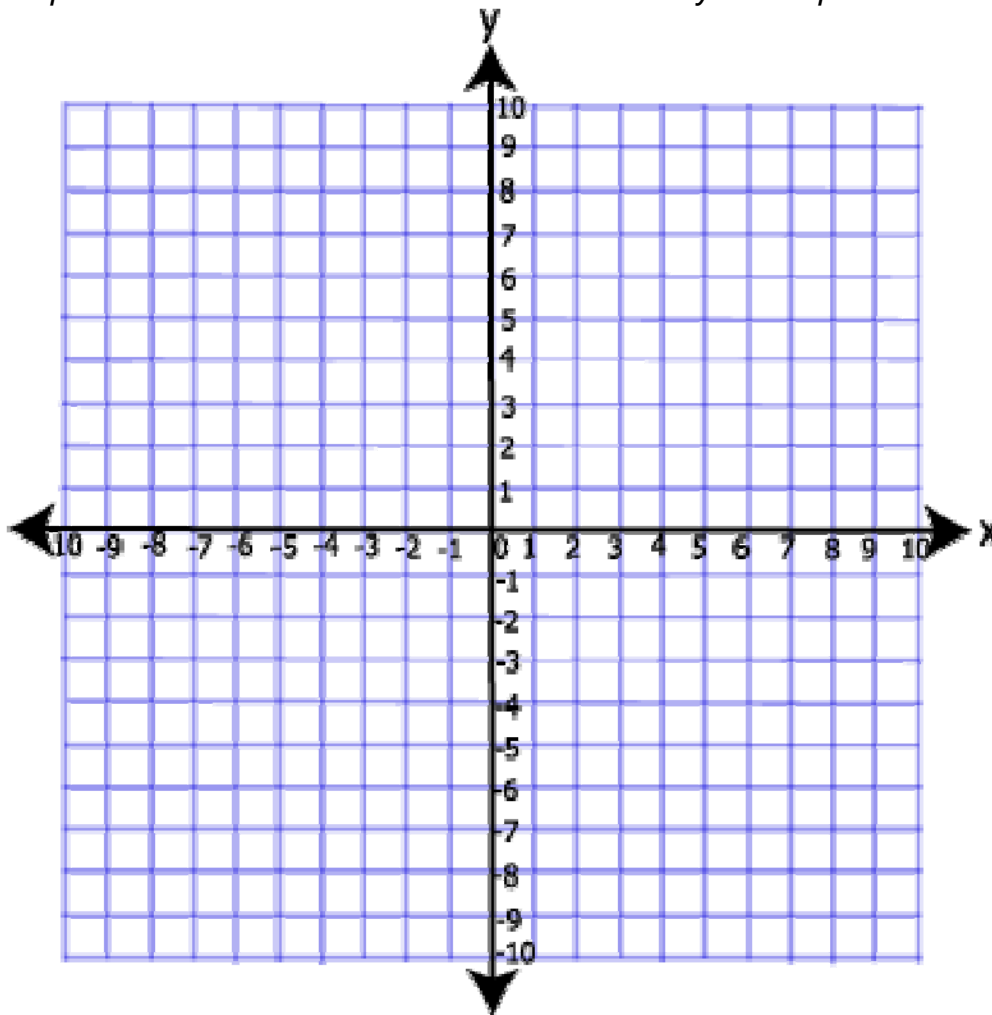
Slope:

y-intercept:

$$y = \frac{3}{2}x - 9$$

Slope:

y-intercept:



Check to make sure that the point satisfies **both** equations.

$$y + 2x = 5$$

$$y = \frac{3}{2}x - 9$$

3) Graph the system of equations and find the point of intersection:

$$y = \frac{1}{3}x + 8$$

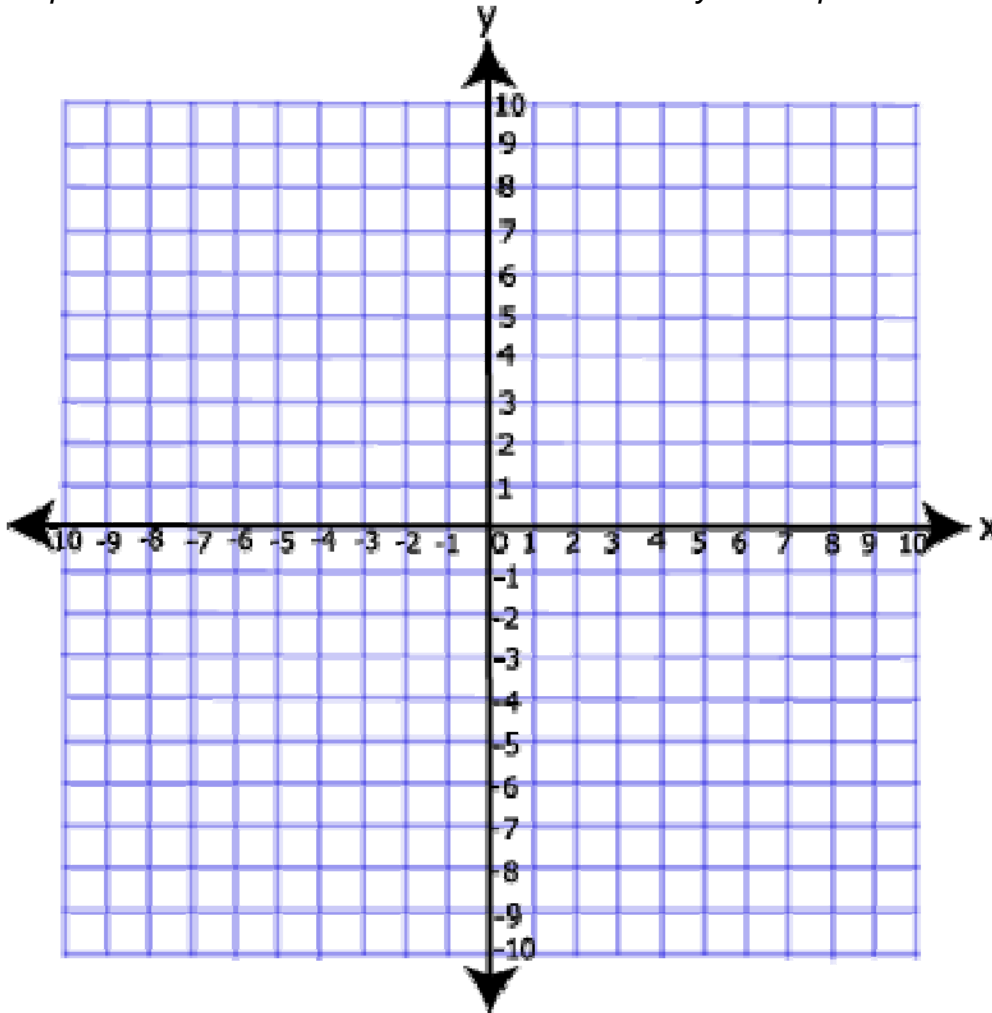
$$y + 3x = -2$$

Slope:

Slope:

y-intercept:

y-intercept:



Check to make sure that the point satisfies **both** equations.

$$y = \frac{1}{3}x + 8$$

$$y + 3x = -2$$

4) Graph the system of equations and find the point of intersection:

$$y = -x$$

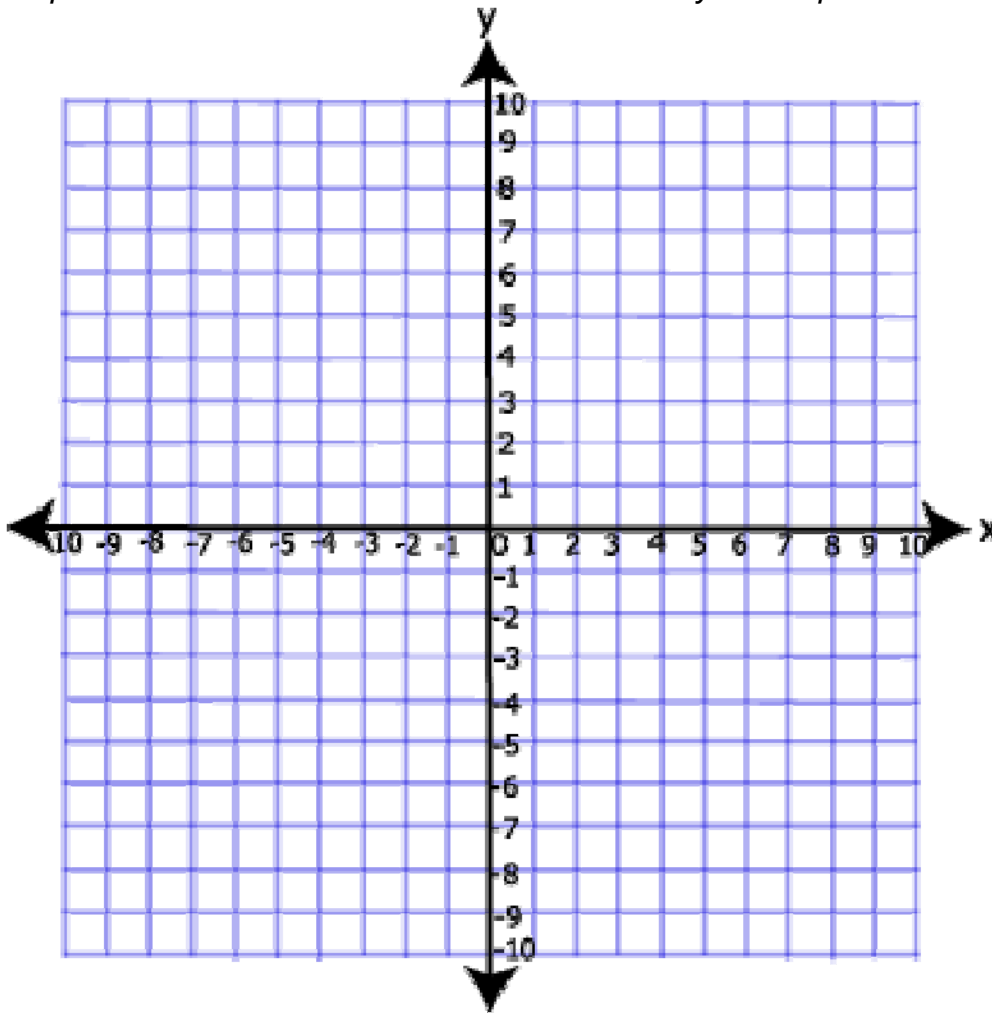
Slope:

y-intercept:

$$2y - x = 12$$

Slope:

y-intercept:



Check to make sure that the point satisfies **both** equations.

$$y = -x$$

$$2y - x = 12$$