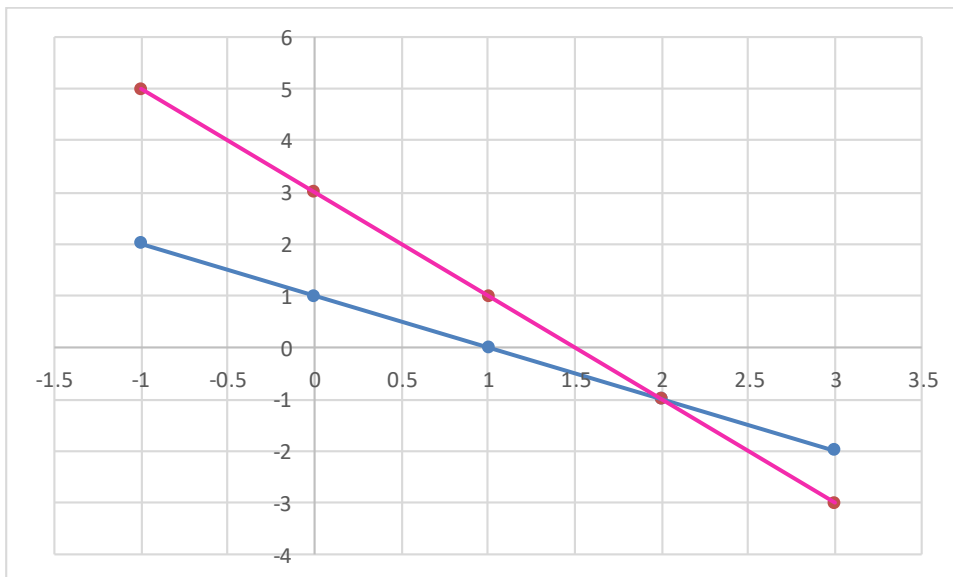


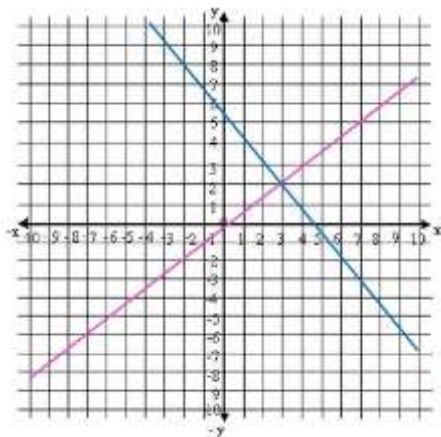
SOLVING LINEAR SYSTEMS BY GRAPHING Exit Quiz

1. From the given graph, identify the equations of the linear functions that compose the system

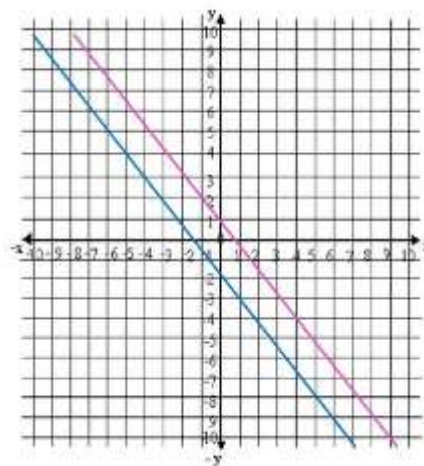


Identify from the graph the solution of the system and determine if it is an independent, inconsistent or dependent system

2.



3.



Find the solution of the following systems by graphing

4.

$$\begin{cases} x + y = 4 \\ x - y = 2 \end{cases}$$

5.

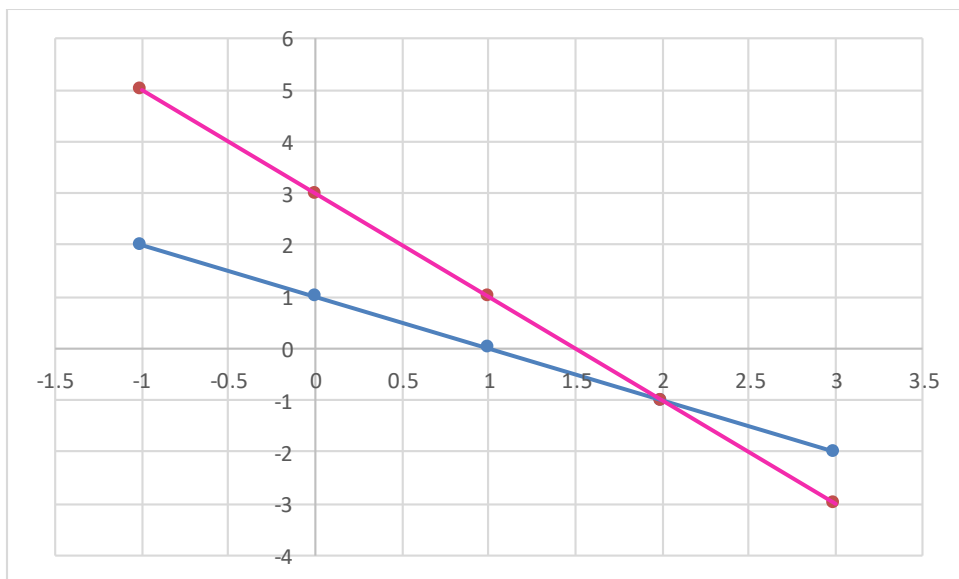
$$\begin{cases} 2x + y = 3 \\ x - y = -3 \end{cases}$$

SOLVING LINEAR SYSTEMS BY GRAPHING Exit Quiz

ANSWER

1. From the given graph, identify the equations of the linear functions that compose the system

Select two points for each linear function to calculate its equation, one point would be the intersection point (2,-1) and the other a point that belong to each of the corresponding linear function.



- For the blue line: (0,1) and (2,-1)

$$y - y_1 = \frac{y_2 - y_1}{x_2 - x_1}(x - x_1)$$

$$y - 1 = \frac{-1 - 1}{2 - 0}(x - 0)$$

$$y - 1 = -x \rightarrow x + y = 1$$

- For the pink line: (0,3) and (2,-1)

$$y - 3 = \frac{-1 - 3}{2 - 0}(x - 0)$$

$$y - 3 = -2(x - 0)$$

SOLVING LINEAR SYSTEMS BY GRAPHING Exit Quiz

$$y - 3 = -2x \rightarrow 2x + y = 3$$

Finally:

$$\begin{cases} 2x + y = 3 \\ x + y = 1 \end{cases}$$

Identify from the graph the solution of the system and determine if it is an independent, inconsistent or dependent system

Remember the solution will be the point of intersection between both linear functions.

2. Solution (3,2) , Independent System
3. No solution, Inconsistent System

Find the solution of the following systems by graphing

One easy way to graph each linear function is to find its intercepts with the axes.

4. $x + y = 4$

$$x = 0 \rightarrow y = 4 \rightarrow (0,4)$$

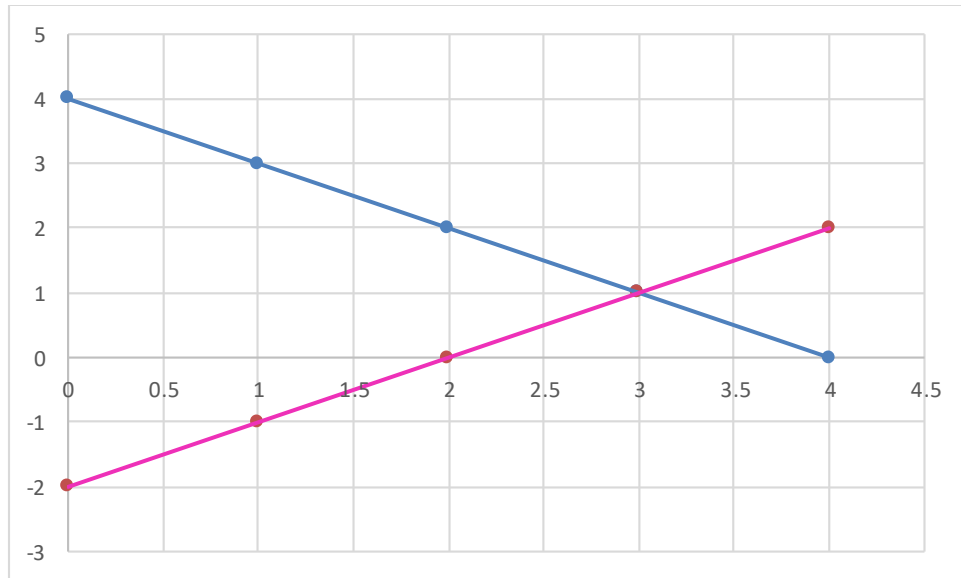
$$y = 0 \rightarrow x = 4 \rightarrow (4,0)$$

$$x - y = 2$$

$$x = 0 \rightarrow y = -2 \rightarrow (0,-2)$$

$$y = 0 \rightarrow x = 2 \rightarrow (2,0)$$

SOLVING LINEAR SYSTEMS BY GRAPHING Exit Quiz



System Solution (3, 1)

5. $2x + y = 3$

$$x = 0 \rightarrow y = 3 \rightarrow (0, 3)$$

$$y = 0 \rightarrow x = \frac{3}{2} \rightarrow (\frac{3}{2}, 0)$$

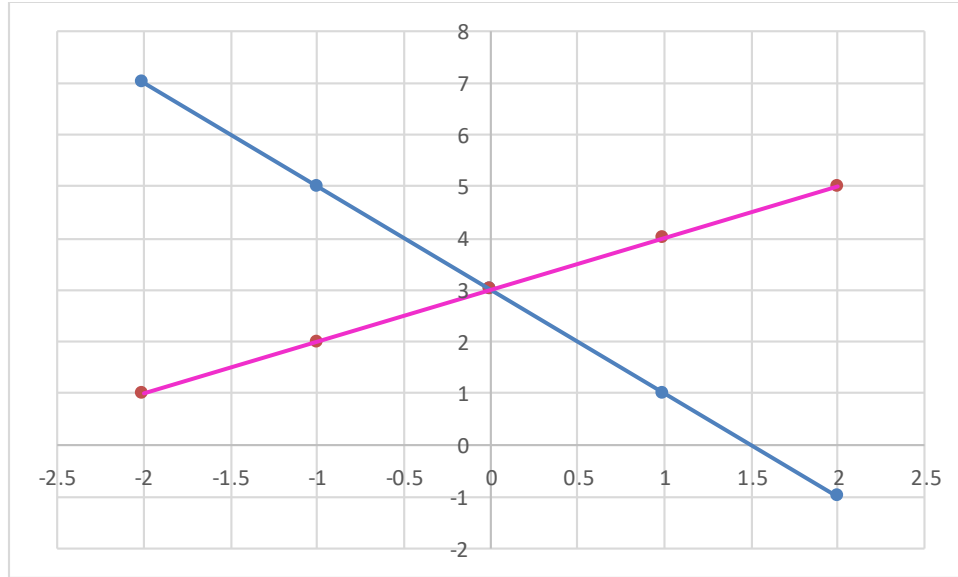
$x - y = -3$

$$x = 0 \rightarrow y = 3 \rightarrow (0, 3)$$

$$y = 0 \rightarrow x = -3 \rightarrow (-3, 0)$$

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SOLVING LINEAR SYSTEMS BY GRAPHING Exit Quiz



System Solution (0, 3)