

3.2 Graphing Linear Equations

Need to Know



- Idea of solutions to linear equation in 2 variables
- Checking a solution to a linear equation in 2 variables
- How to find solutions to linear equation in 2 variables

The Main Idea - Solutions to 2 Variables Equations

One Variable Equation

$$x + 2 = 8$$

Two Variable Equation

$$x + 2y = 8$$

The Main Idea - Solutions to 2 Variables Equations

One Variable Equation

$$x + 2 = 8$$

Variables	
Solution	
Graph	

Two Variable Equation

$$x + 2y = 8$$

Variables	
Solutions	
Graph	

Linear Equations in 2 Variables

- Definition of a **linear equation**, is any equations that can be written in the form of

where m , b , A , B and C are constants.

- It's graph is always a line.



Checking a Solutions

Are the points solutions to the equation $2x - 3y = 12$?

$(3, -4)$

$(-3, -6)$

$(6, 0)$

$(8, -2)$



How to Find Solutions

Find a solutions to $2x + y = 8$

Think about the mental steps

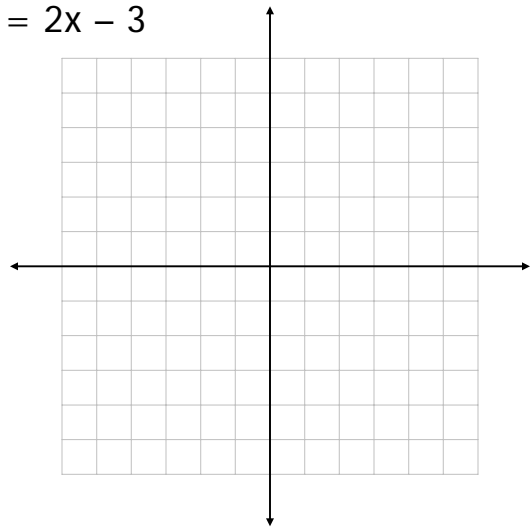
1.

2.

3.

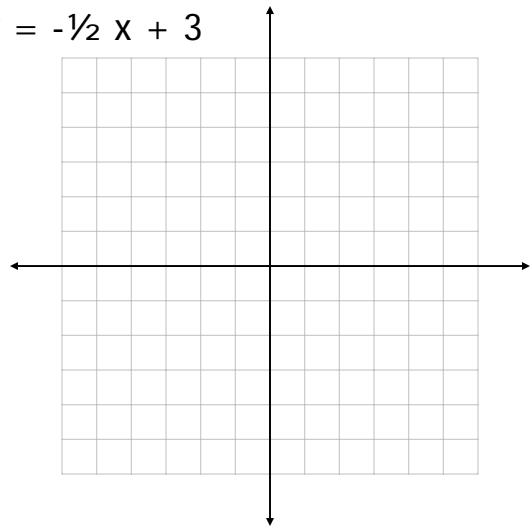
Graphing Linear Equations

Graph the equation $y = 2x - 3$



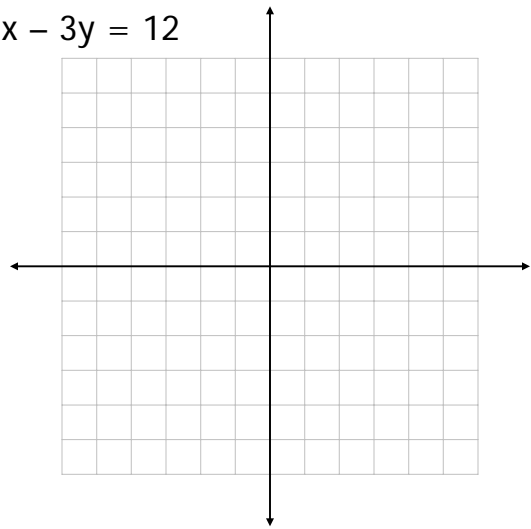
Graphing Linear Equations

Graph the equation $y = -\frac{1}{2}x + 3$



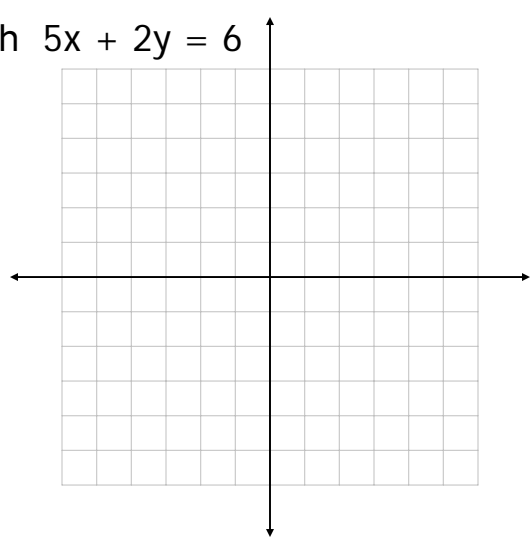
Graphing Linear Equations

Graph the equation $2x - 3y = 12$



Graphing Linear Equations

Solve for y then graph $5x + 2y = 6$



end