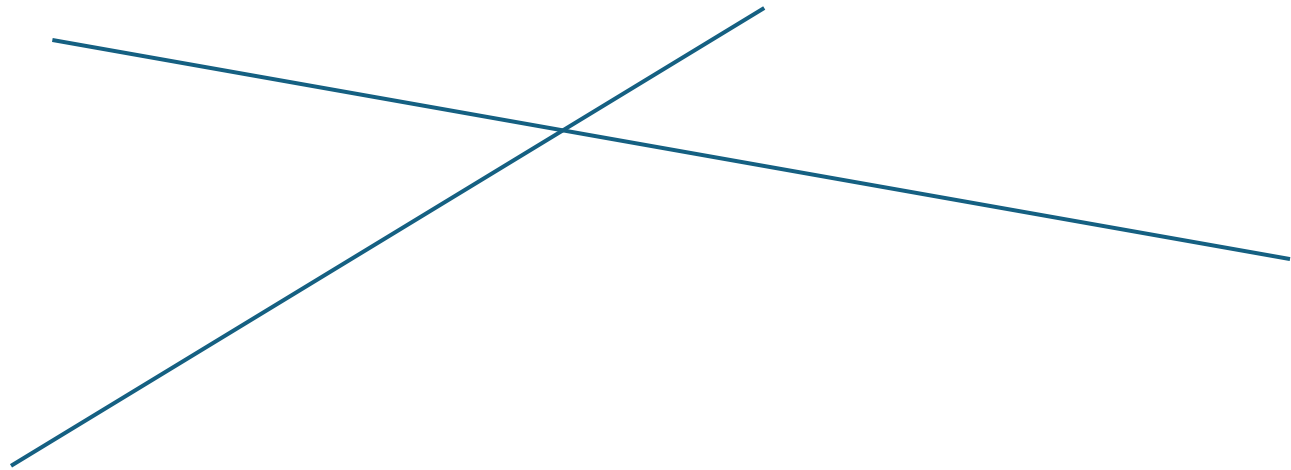


Where 2 lines meet - Kiss

Unless they are parallel, two straight lines meet once. When you have two linear equations, you can determine where those two lines meet on a Cartesian plane.



1- Line up your X's, Y's, and numbers

$$3X + Y = 10$$

$$2X - Y = 20$$

2- If a variable has the same number and opposite sign, you are ready to add the two equations.

$$5X = 30$$

$$X = 6$$

4- Plug in the X value into any equation and find the Y value

$$3(6) + Y = 10$$

$$Y = 10 - 18$$

$$Y = -8$$

If the number is not the same, multiply the equation to make it the same.

$$2X - 4Y = 12$$

$$2X + Y = 12$$

In this case, multiply the second equation by 4

$$2X - 4Y = 12$$

$$8X + 4Y = 48$$

Now you can eliminate one variable and find the second one.

If the sign is the same, multiply the equation by -1

$$2X + 4Y = 12$$

$$2X + 4Y = 12$$

In this case, multiply the second by -1

$$2X + 4Y = 12$$

$$-2X - 4Y = -12$$

Now you can eliminate one variable and find the second one.