

# Intersecting Point Using Systems Of Equations

NOTE THIS IS OUR LAST CLASS. SO IF YOU WANT YOU CAN  
DIVIDE THE VIDEOS AND WATCH TWO THIS WEEK AND  
ANOTHER NEXT WEEK.

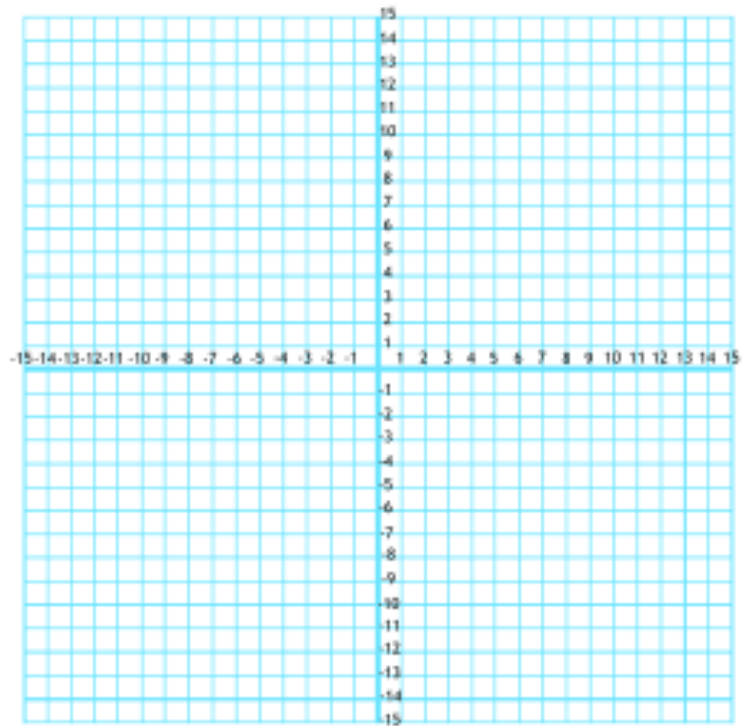
Functional vs General Form

$$2x - 3y + 1 = 0$$

Let's Draw two lines

$$Y = 2x - 9$$

$$Y = -3x + 1$$



We might not always have graph paper handy so there are other algebraic methods that help us solve and find this intersecting point.

There are three methods

1. Comparison Method
2. Substitution Method
3. Elimination Method

### Comparison Method

Remember a system of equation is any set of two or more equations. We will mostly deal with two equations and next year you will deal with more than 3 ,4 or even more than 6. Now equations are 'lines'. Meaning we will be drawing all the lines in this so called "system".

The first method only works when both of your equations are in the functional form:

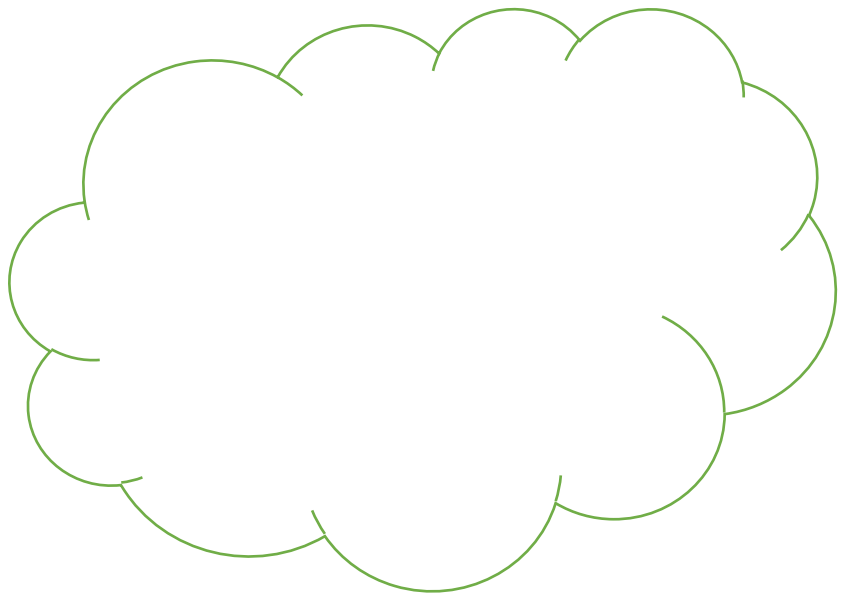
$$Y = ax + b$$

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Example:

$$Y = x + 2$$

$$Y = 3x - 2$$



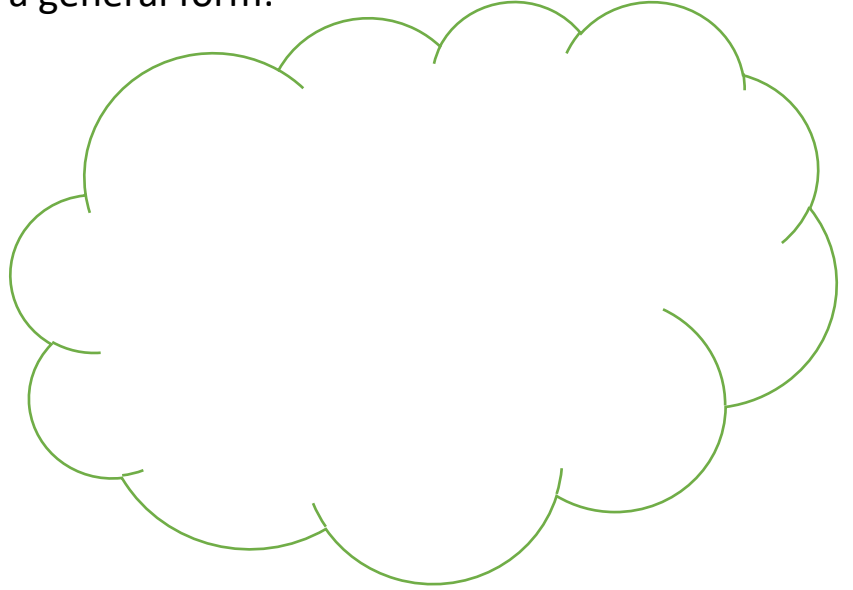
## Substitution Method

The second method only works when one of your equations are in the functional form and another in a general form:

Example:

$$Y = 6x - 11$$

$$-2x - 3y = -7$$



## Elimination Method

The third method only works when both of your equations are in the general form:

$$4x + 3y = -5$$

$$-2x + 2y = 6$$

