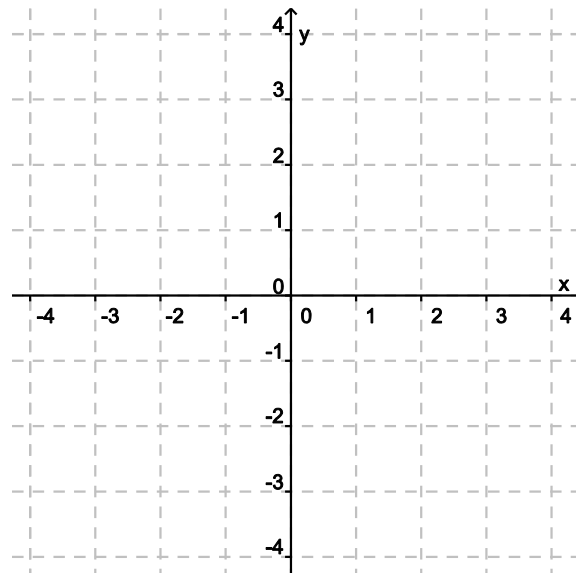


Linear Equations in Two Variables; The Rectangular Coordinate System

The **rectangular** (or **Cartesian**) **coordinate system** is a way to locate points on a plane.



A **linear equation in two variables** is an equation that can be written in the form $Ax + By = C$ (here, A , B , and C are real numbers, and A and B are not both 0)

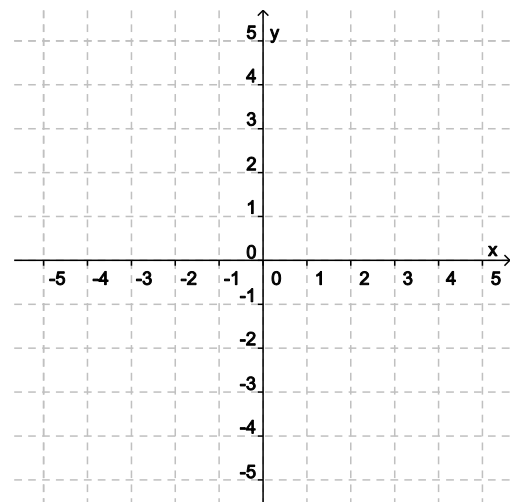
Ex 1.

Decide whether $(3, 2)$ is a solution of the equation $2x + 3y = 12$.

Ex 2.

Complete the table of values for $2x + y = 3$. Write the results as ordered pairs.

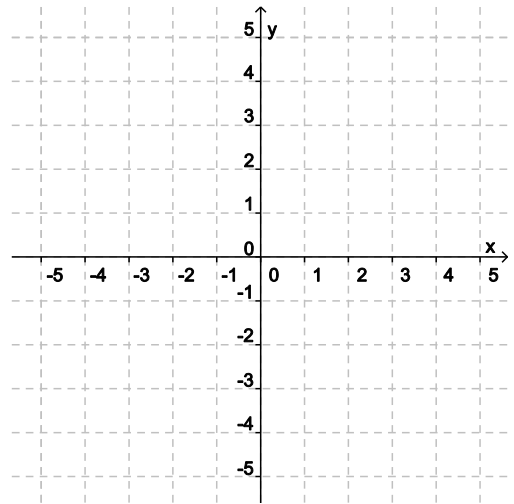
x	y	(x, y)
1		
0		
	5	
	-3	



Practice

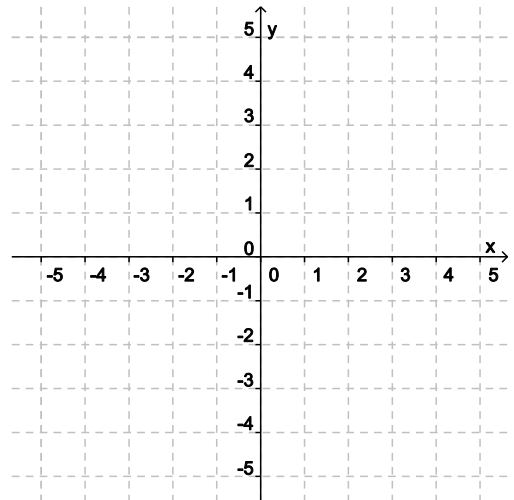
- Decide whether $(2, 1)$ is a solution of the equation $4x - 3y = 6$.
- Decide whether $(-6, 4)$ is a solution of the equation $x = -6$.
- Complete the table of values for $2x - 5y = 10$. Write the results as ordered pairs.

x	y	(x, y)
0		
	0	
	-3	
-5		



- Complete the table of values for $y + 3 = 0$. Write the results as ordered pairs.

x	y	(x, y)
-1		
0		
2		



Q: What five-letter word becomes shorter when you add two letters to it?