

Graphing using the Table Method

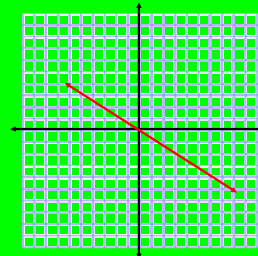
How can you tell if an equation is linear?

- ☆ Variables are to the first power.
- ☆ The equation contains only one or two variables.
- ☆ If the ordered pairs are graphed, they form a straight line.

Nov 12-8:01 AM

A **solution** to an equation is an ordered pair (x,y) that makes the equation true.

How many solutions are there to a linear equation?



Nov 12-7:46 AM

Ex1) Determine whether the point is a solution?

a) $4x - y = 1$; $(-1, 3)$

b) $4x - y = 1$; $(1, 3)$

Try#1. $(-2, -6)$

Nov 12-8:09 AM

To use the table method:

1. Find 3 ordered pairs (solutions) to the linear equation.

x	y	or	x	y
-1			-1	
0			0	
1			1	

2. Plot the 3 points and draw a straight line. (If they don't connect you made a mistake.)

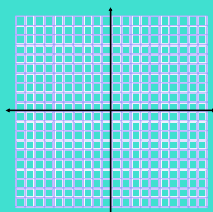
Nov 12-8:11 AM

Ex2a) $y = x + 1$

1.

x	y	or	x	y

2.



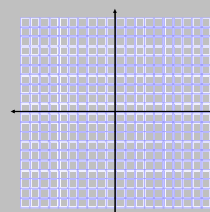
Nov 12-8:16 AM

Ex2b) $y = 3x - 2$

1.

x	y	or	x	y

2.



Nov 12-8:16 AM

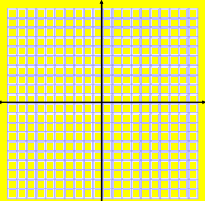
Ex2c) $-9x + 3y = -6$

1.

x	y

 or

x	y

2. 

Nov 12-8:16 AM

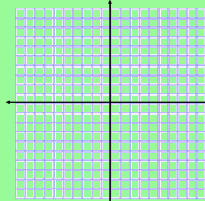
Ex2c) $-2x + y = -4$

1.

x	y

 or

x	y

2. 

Nov 12-8:16 AM

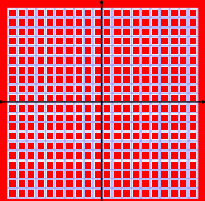
Try #2) $y = x - 4$

1.

x	y

 or

x	y

2. 

Nov 12-8:16 AM

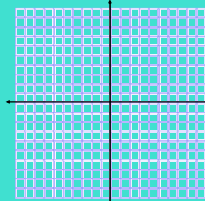
Try #3) $3x - y = 5$

1.

x	y

 or

x	y

2. 

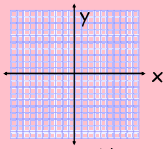
Nov 12-8:16 AM

Ex3) Special Equations

1. Use a table of values to graph:

x=#	<table border="1"><tr><td>x</td><td>y</td></tr><tr><td>#</td><td>-1</td></tr><tr><td>#</td><td>0</td></tr><tr><td>#</td><td>1</td></tr></table>	x	y	#	-1	#	0	#	1	y=#	<table border="1"><tr><td>x</td><td>y</td></tr><tr><td>-1</td><td>#</td></tr><tr><td>0</td><td>#</td></tr><tr><td>1</td><td>#</td></tr></table>	x	y	-1	#	0	#	1	#
x	y																		
#	-1																		
#	0																		
#	1																		
x	y																		
-1	#																		
0	#																		
1	#																		

2. Plot the points and the line will either be vertical or horizontal.



***Short cut method**- whatever variable it contains, that is the only axis it goes through

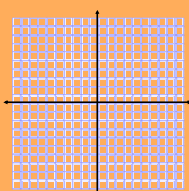
Nov 12-8:19 AM

Ex3a) $x = -3$

1. Make a table of values:

x	y

2. Graph the points and make a line.



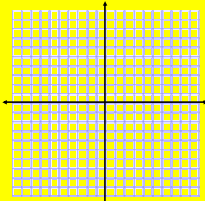
Nov 12-8:29 AM

Ex3b) $y = -4$

1. Make a table of values:

x	y

2. Graph the points and make a line.



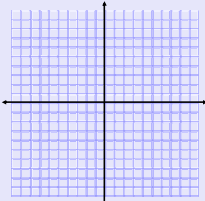
Nov 12-8:29 AM

Try #4) $x = -6$

1. Make a table of values:

x	y

2. Graph the points and make a line.



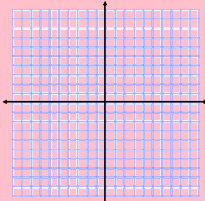
Nov 12-8:29 AM

Try #5) $y = 2$

1. Make a table of values:

x	y

2. Graph the points and make a line.



Nov 12-8:29 AM