

Linear Equations

Graphing with Tables

Nov 5, 2014

I can graph **linear** equations using a table.

HW: Finish recursion packet
→ Graphing w/ Tables WS

Graphing

1. Isolate the y in the equation
2. Build a table. Ms. Mahony requires:
 - 4 points
 - a zero and negative
 - Use a straight edge (RULER)
3. Plot points & draw line
 - Use a ruler
 - Extend line ALL the way to ends of graph
 - Arrows on each end

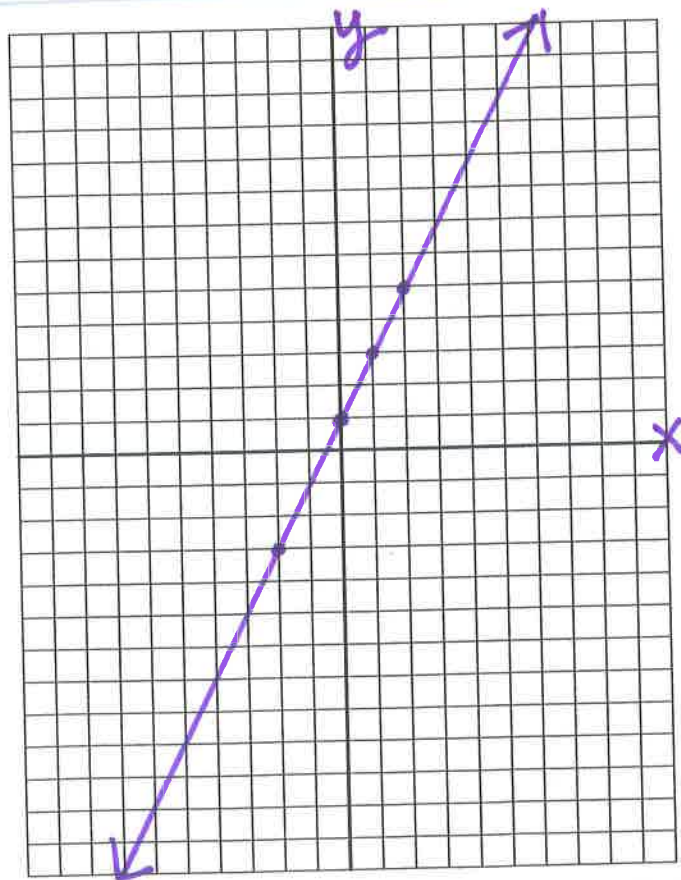
Graph:

isolated. → $y = 2x + 1$

x	$y = 2(x) + 1$	y	(x, y)
-2	$y = 2(-2) + 1$	-3	$(-2, -3)$
0	$y = 2(0) + 1$	1	$(0, 1)$
1	$y = 2(1) + 1$	3	$(1, 3)$
2	$y = 2(2) + 1$	5	$(2, 5)$

NOT ISOLATED: $2y - 4x = 2$

left (-) Right (+)
down (-) up (+)

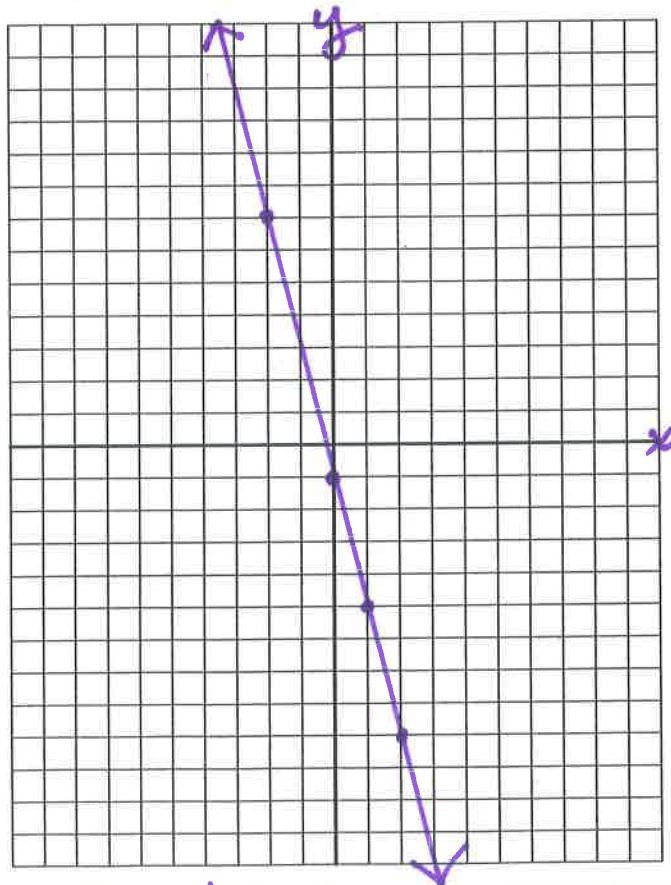


$$y = 2x + 1$$

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Graph $y = -4x - 1$

x	$y = -4x - 1$	y	(x, y)
(-2)	$y = -4(-2) - 1$	7	$(-2, 7)$
(0)	$y = -4(0) - 1$	-1	$(0, -1)$
1	$y = -4(1) - 1$	-5	$(1, -5)$
2	$y = -4(2) - 1$	-9	$(2, -9)$



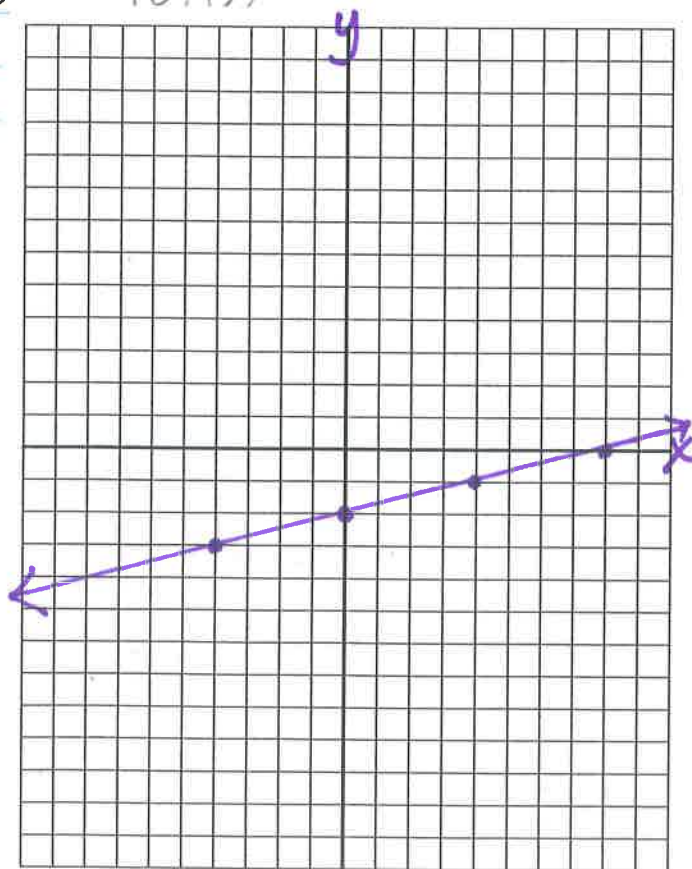
$y = -4x - 1$

graph $y = \frac{1}{4}x - 2$

$$\frac{1 \cdot x}{4}$$

↑ Fractions! PICK #'S DIVISIBLE BY DENOMINATOR!

x	$y = \frac{1}{4}x - 2$	y	
-4	$y = \frac{1}{4} \cdot (-4) - 2$ $y = \frac{-4}{4} - 2$ $y = -1 - 2$	-3	(-4, -3)
0	$y = \frac{1}{4}(0) - 2$	-2	(0, -2)
4	$y = \frac{1}{4}(4) - 2$ $1 - 2$	-1	(4, -1)
8	$y = \frac{1}{4}(\frac{8}{1}) - 2$ $y = \frac{8}{4} - 2$	0	(8, 0)



$$y = \frac{1}{4}x - 2$$

Graph $y = -2$ Graph $x = 4$

x	$y = -2$	y
-2	$y = -2$	-2 (-2, -2)
0	$y = -2$	-2 (0, -2)
1	$y = -2$	-2 (1, -2)
2	$y = -2$	-2 (2, -2)

x	$x = 4$	y
-2	$-2 = 4$	
4	$4 = 4$	0 (4, 0)
4	$x = 4$	1 (4, 1)
4	$x = 4$	2 (4, 2)
4	$x = 4$	3 (4, 3)