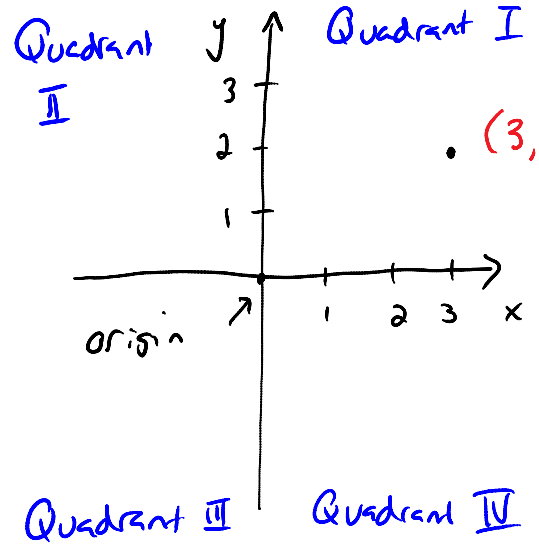
Section 3.1: Graphing Lines in the Coordinate Plane

Tuesday, October 15, 2013
8:31 AM



(3,2) is an ordered pair

LABEL YOUR GRAPHS!

- label your axes (x and y)
- label the tickmarks to set the SCALE

exponents on variables are all equal to 1

linear equation in two variables:

is in the form

$$Ax + By = C$$

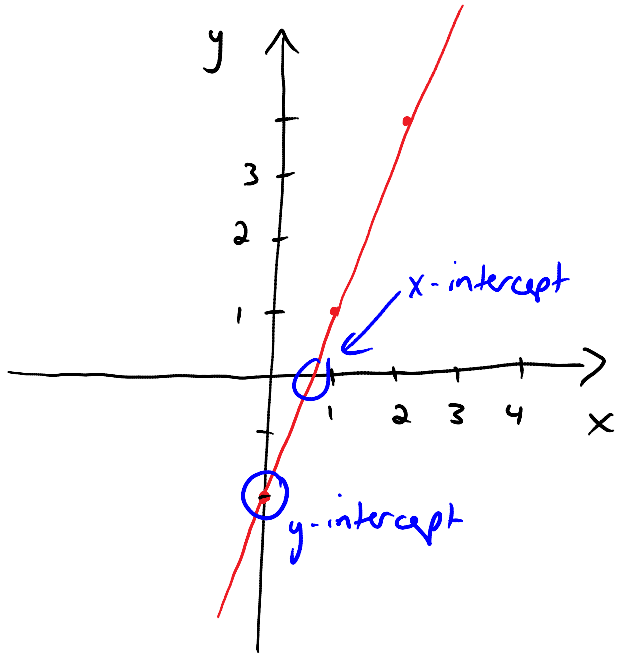
where A, B, and C are all real numbers (constants)

and A and B are not both zero

example: sketch the graph $y = 3x - 2$

brute force method: table of values

x	y
-3	
-2	-8
-1	-5
0	-2
1	1
2	4
3	7



the variable graphed on the x-axis is called the independent variable

the y-axis variable is called the dependent variable

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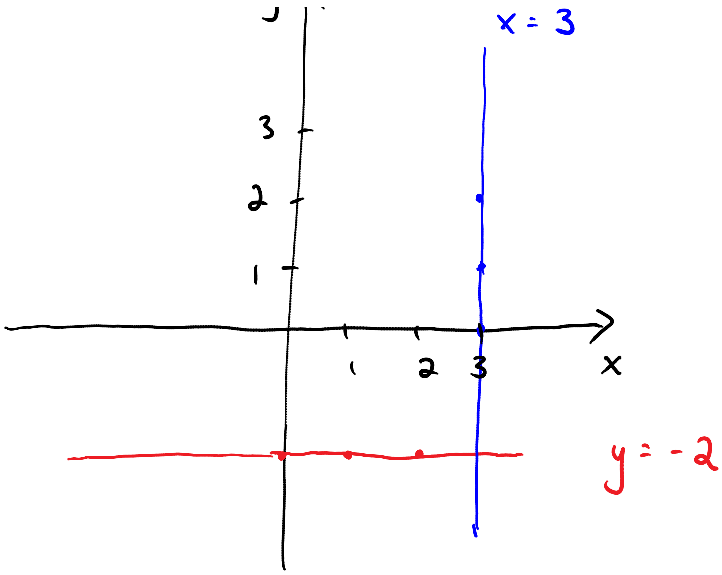
horizontal & vertical lines:

example: sketch $y = -2$ and $x = 3$ on the the same graph



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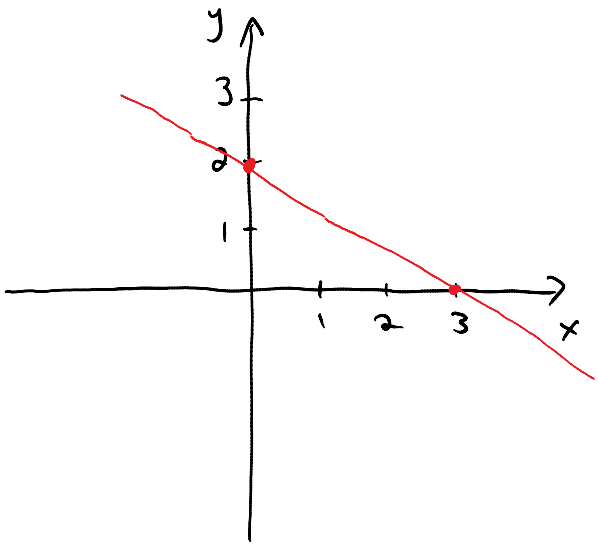
using intercepts for graphing:

graph $2x + 3y = 6$

when $x = 0$, $y = 2$
$y = 0$, $x = 3$

so $(0,2)$ is y-intercept
$(3,0)$ is x-int



use intercepts to sketch the graph $-5x + 3y = 30$

when $x = 0$, $y = 10$

$y = 0$, $x = -6$