What goes up Must come d

Today

- Note on test makeup
- Equations of a line note
- homework

Tests

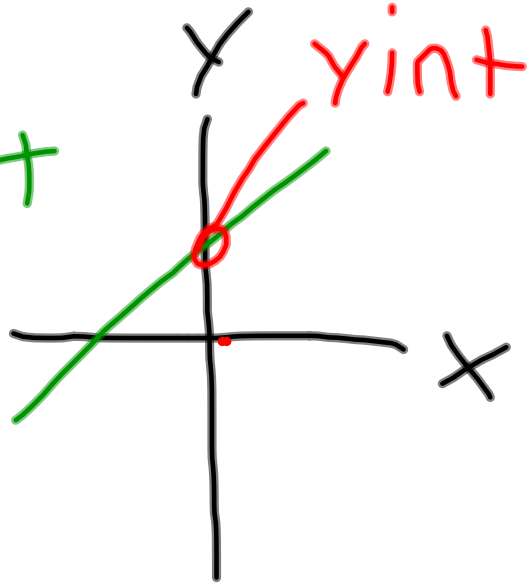
m are about lines.

$$y = mx + b$$

we write the equation of a line like this a lot.

m = ROC or slope

b = SV or y-intercept



ROC SV

A line has a slope of -2 and a y intercept of 4.

What is the equation of the line?

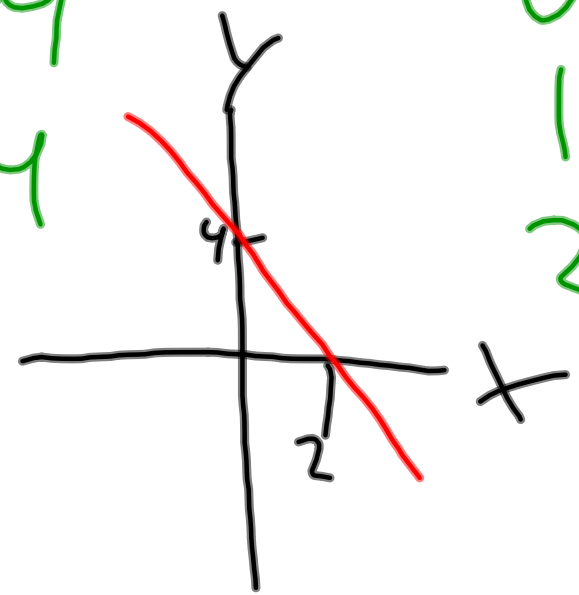
$y = -2x + 4$

$y = -2(-2) + 4$

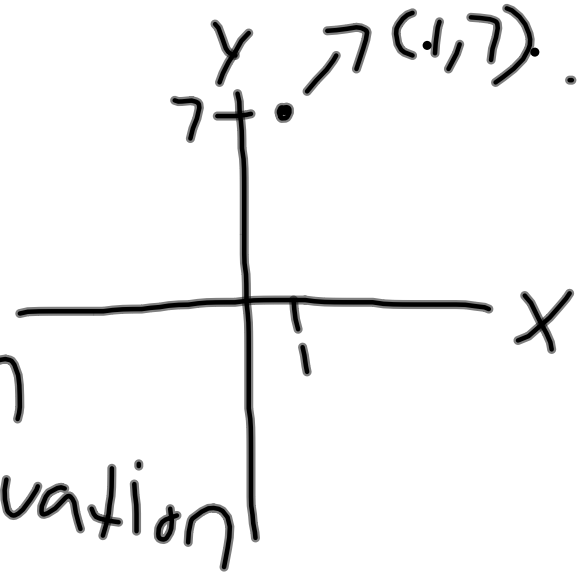
$y = 4 + 4$

$y = 8$

x	y
-2	8
-1	6
0	4
1	2
2	0



A line has a slope of 3 and hits the point (1,7) what is the equation of the line?



$y = 3x + b$

put our known point in the equation

$7 = 3(1) + b$

$-3 \quad -3$

$7 = 3 + b$

now simplify & solve

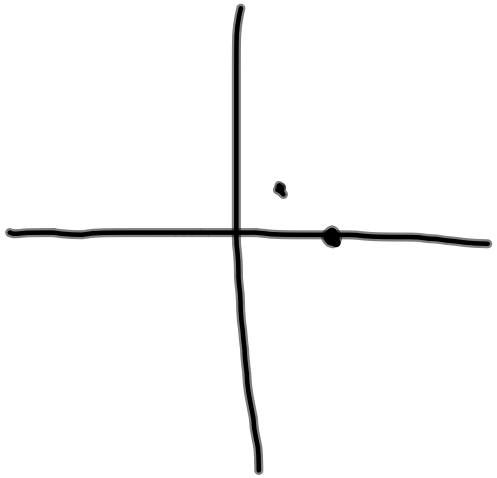
$4 = b$

$b = 4$

$$\boxed{y = 3x + 4}$$

The equation of our line

A line hits these two points (1, 2) and (3, 0) what is the equation of the line?



$y = mx + b$

$y = -mx + b$

$y = -1x + b$

$2 = -1(1) + b$

$+1 \quad +1$

$2 = -1 + b$

$3 = b$

$y = -1x + 3$

x	y
1	2
3	0

$2 \quad -2$

$ROC = \frac{-2}{2} = -1$

Homework

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