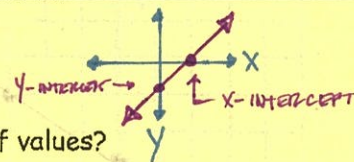


CW # 5.4a Quick Graphs Using Slope Intercept Form

goal 1.

journal

1. What are the x and y intercepts of a graph?



2. How do they make graphing a line faster than using a table of values?

3. In the equation $y = mx + b$, which letter represents the y intercept? b

examples

1. Find the slope and y intercept.

a.) $y = 3x + 2$

$m = 3$
 $b = 2$

b.) $y = -2 + \frac{1}{2}x$

$m = \frac{1}{2}$
 $b = -2$

c.) $y = \frac{3}{4}x + 0$

$m = \frac{3}{4}$
 $b = 0$

d.) $y = 4 - 1x$

$m = -1$
 $b = 4$

e.) $\frac{1}{4}x - 5 = y$

$m = \frac{1}{4}$
 $b = -5$

f.) $y = x - \frac{1}{8}$

$m = 1$
 $b = -\frac{1}{8}$

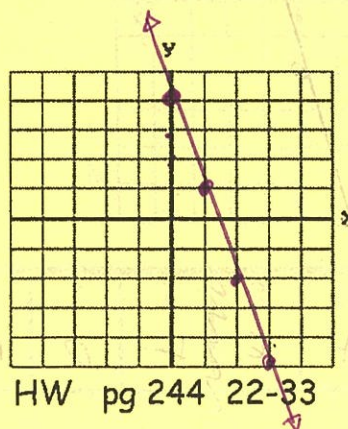
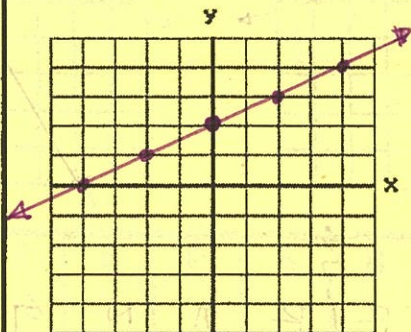
2. Graph the equation.

a.) $y = \frac{1}{2}x + 2$

$m = \frac{1}{2}$ (up 1, right 2)
 $b = 2$

b.) $y = -3x + 4$

$m = -\frac{3}{1}$ (down 3, right 1)
 $b = 4$



$y = mx + b$
↑ slope ↑ y-intercept

1ST STEP
↓
 $y = mx + b$
↑
2ND STEP
RISE ↑
RUN →

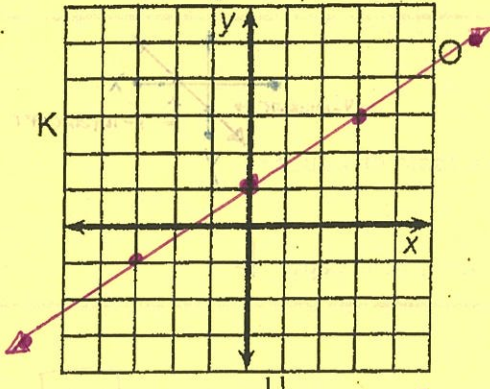
Whom Should You See at the Bank If You Need To Borrow Money?

$-\frac{3}{4} = \frac{-3}{4} = \frac{3}{-4}$

Use the slope and y-intercept to graph each equation below. The graph, if extended, will cross a letter. Print this letter in each box that contains the number of that exercise.

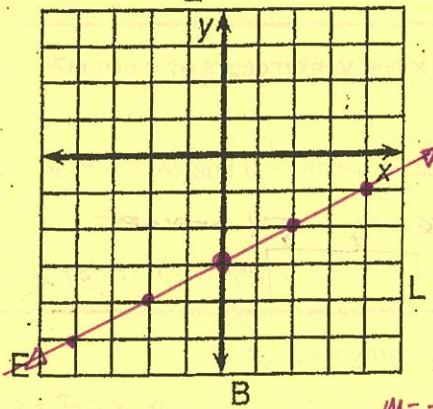
① $y = \frac{2}{3}x + 1$

$m = \frac{2}{3}$
 $b = 1$



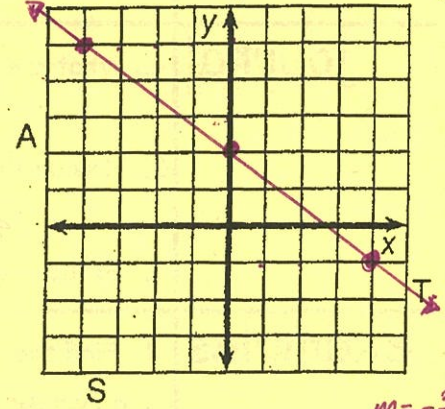
② $y = \frac{1}{2}x - 3$

$m = \frac{1}{2}$
 $b = -3$



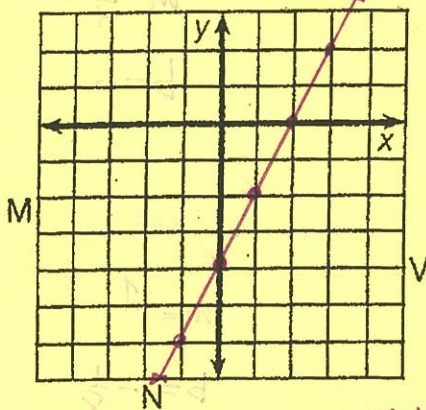
③ $y = -\frac{3}{4}x + 2$

$m = -\frac{3}{4}$
 $b = 2$



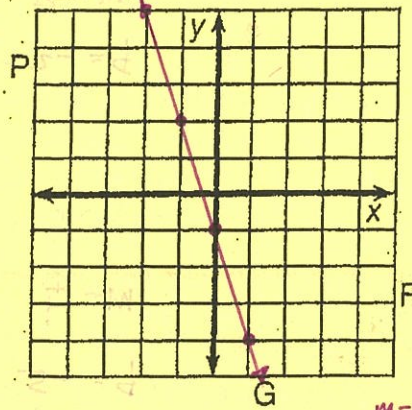
④ $y = 2x - 4$

$m = 2$
 $b = -4$



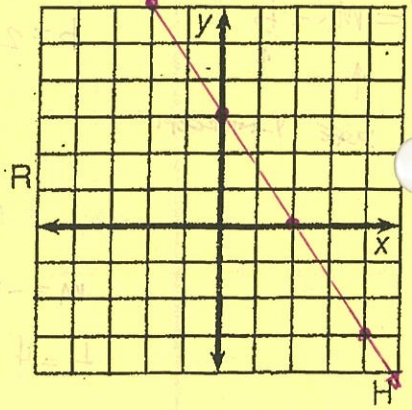
⑤ $y = -3x - 1$

$m = -3$
 $b = -1$



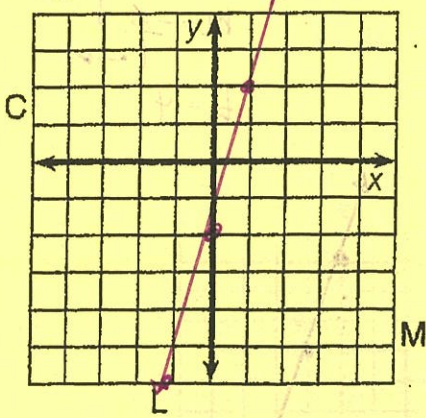
⑥ $y = -\frac{3}{2}x + 3$

$m = -\frac{3}{2}$
 $b = 3$



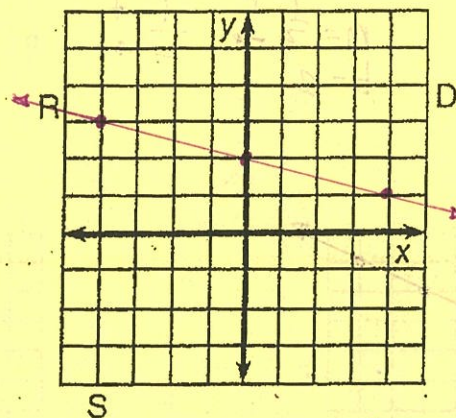
⑦ $y = 4x - 2$

$m = 4$
 $b = -2$



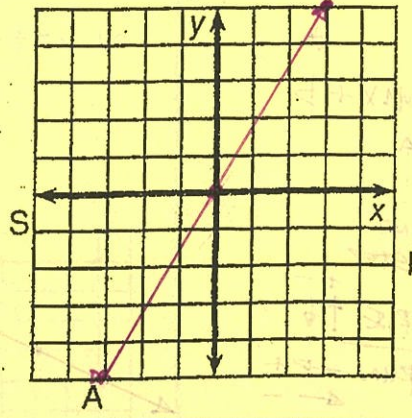
⑧ $y = -\frac{1}{4}x + 2$

$m = -\frac{1}{4}$
 $b = 2$



⑨ $y = \frac{5}{3}x$

$m = \frac{5}{3}$
 $b = 0$



3	6	2	7	1	9	4	9	8	8	9	4	5	2	8
T	H	E	L	O	A	N	A	R	R	A	N	G	E	R