

## Graphing Lines

A relationship can exist between  $x$ 's and  $y$ 's creating a "Function"

The  $x$  is called the *independent variable* because we can choose any  $x$  we like

The  $y$  is called the *dependent variable* because its value depends on the  $x$  we choose

To sketch a line we need 2 points (minimum)

Sketch the following lines on the axis provided

a)  $y = 3x - 2$

$x$		$y$
0	$3(0) - 2$	-2
1	$3(1) - 2$	1

b)  $y = -2x + 4$

$x$		$y$
0	$-2(0) + 4$	4
1	$-2(1) + 4$	2

c)  $y = \frac{1}{3}x - 5$

Notice I'm choosing 3 not 1, so I get a nice point

$x$		$y$
0	$\frac{1}{3}(0) - 5$	-5
3	$\frac{1}{3}(3) - 5$	-4

d)  $y = \frac{-2}{5}x + 2$

Notice I'm choosing 5 not 1

$x$		$y$
0	$\frac{-2}{5}(0) + 2$	2
5	$\frac{-2}{5}(5) + 2$	0

e)  $8x + y = 5$

or  $y = 5 - 8x$

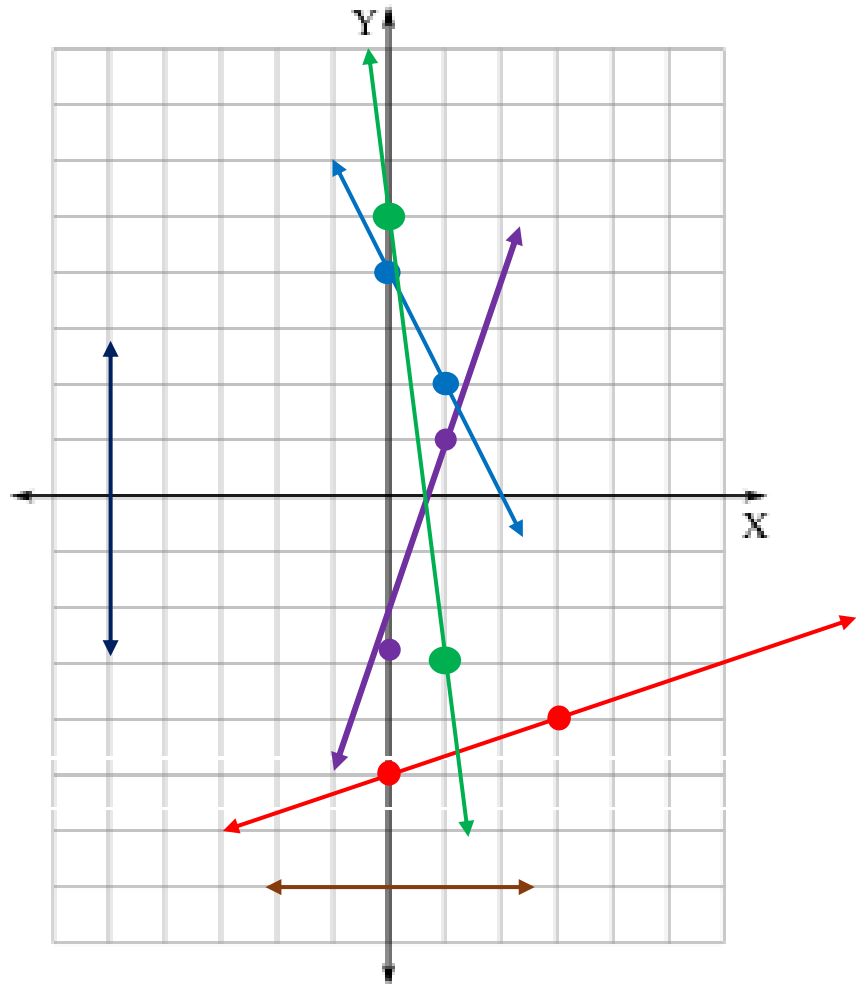
$x$		$y$
0	$5 - 8(0)$	5
1	$5 - 8(1)$	-3

f)  $x = -5$

vertical line at -5

g)  $y = -7$

Flat line at -7



Assignment = worksheet

## Review Sheet Lines and Sketching

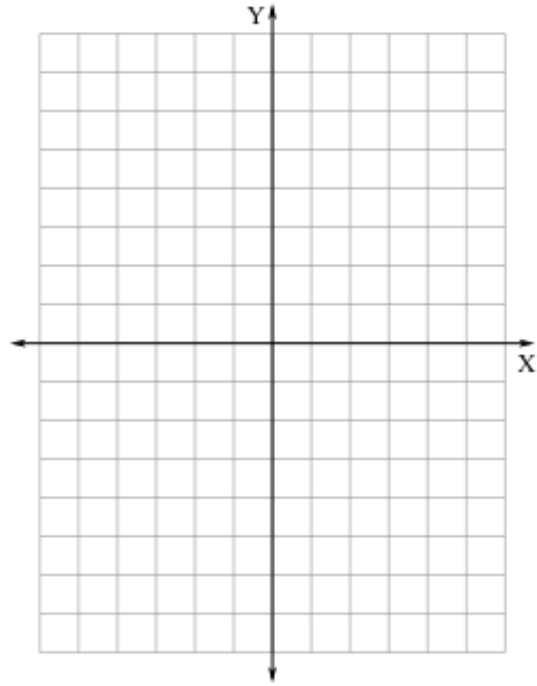
1) Sketch the following lines on provided axis

a)  $y = 2x - 6$

b)  $y = 3x + 1$

c)  $y = -3x$

d)  $y = 5$

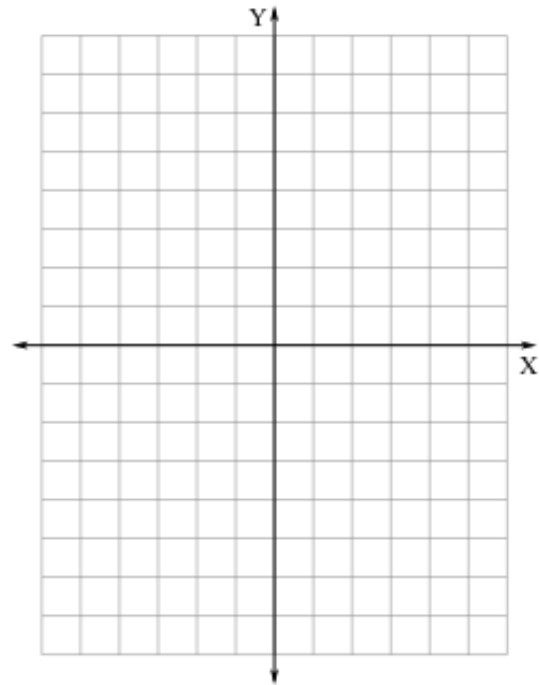


e)  $y = \frac{x}{4} - 2$

f)  $y = \frac{-x}{3} + 4$

g)  $y = \frac{-2x}{5}$

h)  $x = -3$

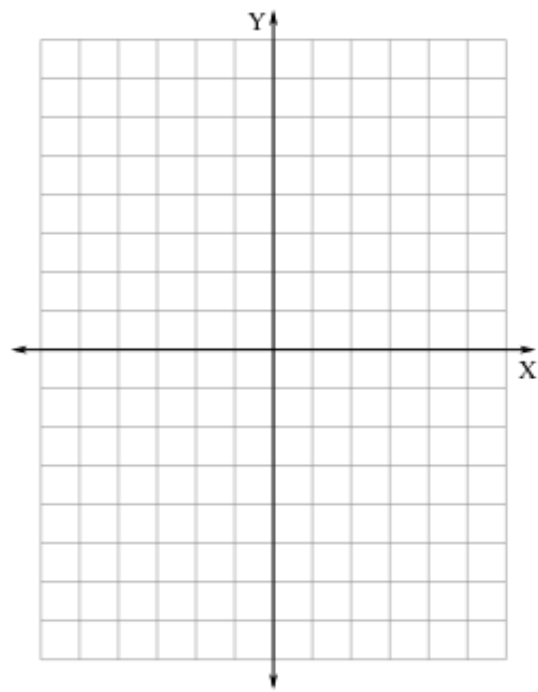


i)  $y = -x + 5$

j)  $3x + y = 6$

k)  $y = -4$

l)  $y - 2x = 3$

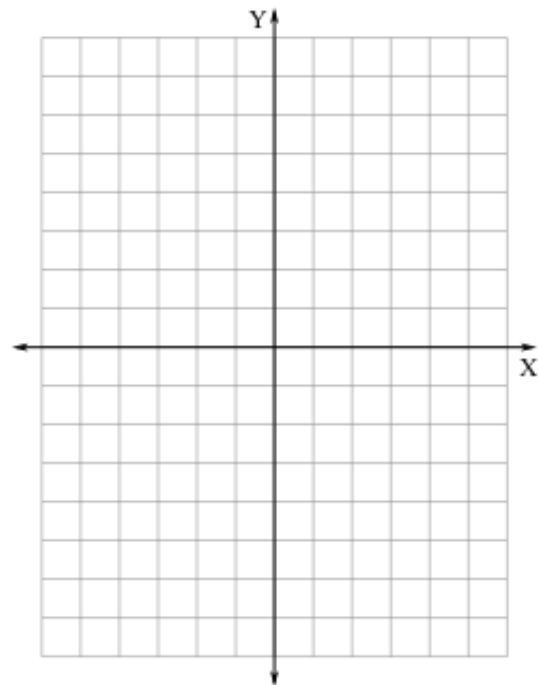


m)  $x = 6$

n)  $y = \frac{-2x}{5} - 2$

o)  $y = \frac{3}{4}x + 2$

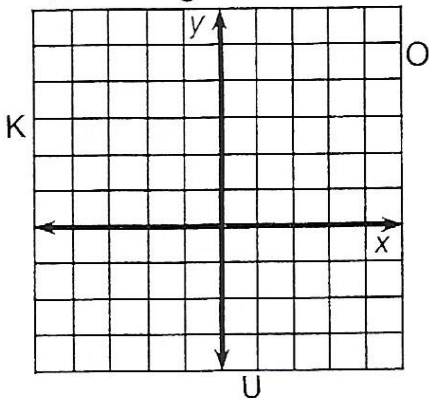
p)  $8x - 2y = 12$



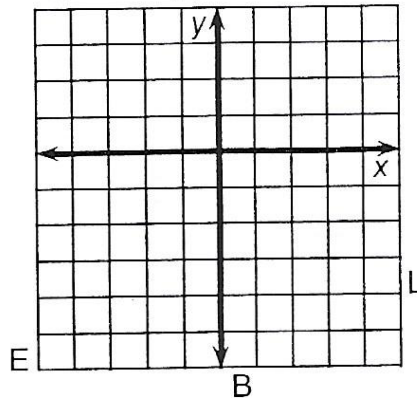
# Whom Should You See at the Bank If You Need To Borrow Money?

The graph, if extended, will cross a letter. Print this letter in each box that contains the number of that exercise.

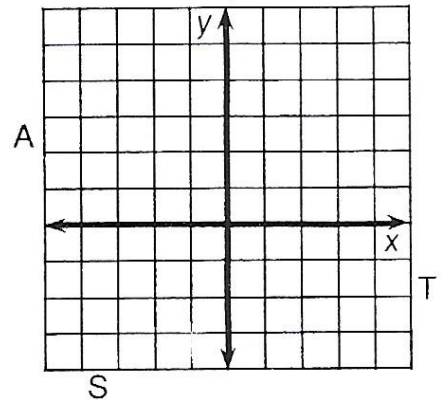
①  $y = \frac{2}{3}x + 1$



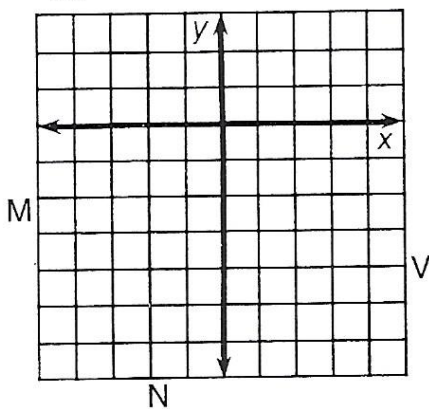
②  $y = \frac{1}{2}x - 3$



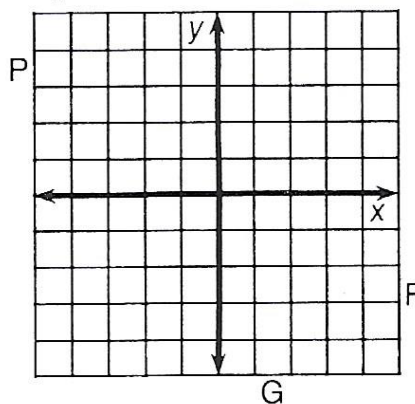
③  $y = -\frac{3}{4}x + 2$



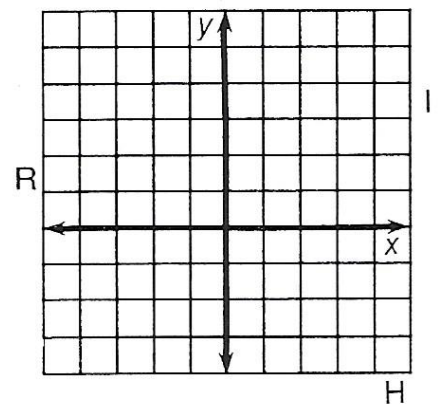
④  $y = 2x - 4$



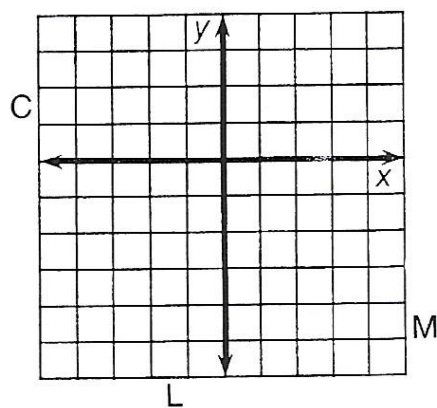
⑤  $y = -3x - 1$



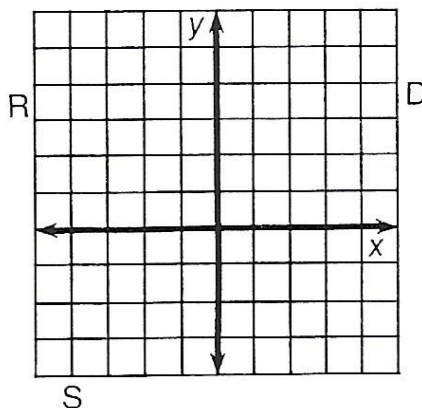
⑥  $y = -\frac{3}{2}x + 3$



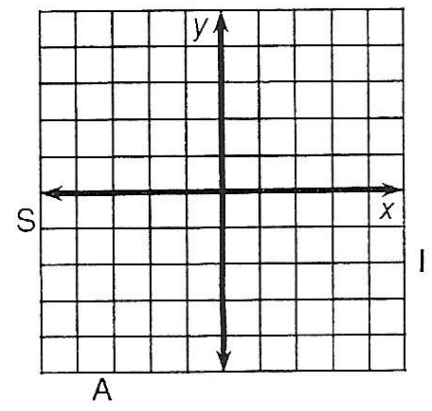
⑦  $y = 4x - 2$



⑧  $y = -\frac{1}{4}x + 2$



⑨  $y = \frac{5}{3}x$



3	6	2	7	1	9	4	9	8	8	9	4	5	2	8
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