math Antics Worksheets

Name: _____

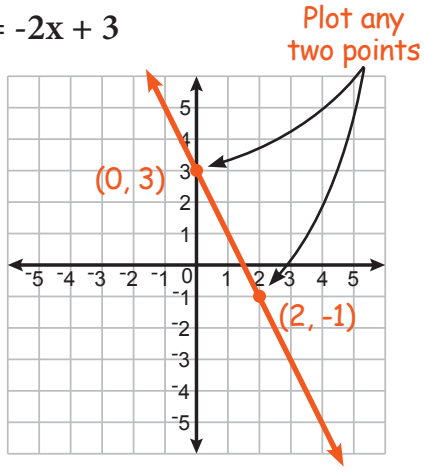
Date: _____

Graphing Linear Functions

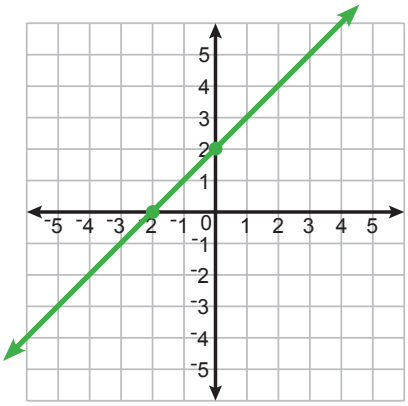
AB-BLF 1

Instructions: Graph each linear function on the coordinate plane. (Hint: you only need to plot two points to graph the line. Then you can use a ruler to draw a straight line through those two points.)

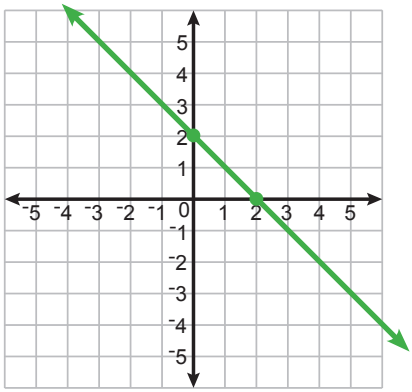
1 $y = -2x + 3$



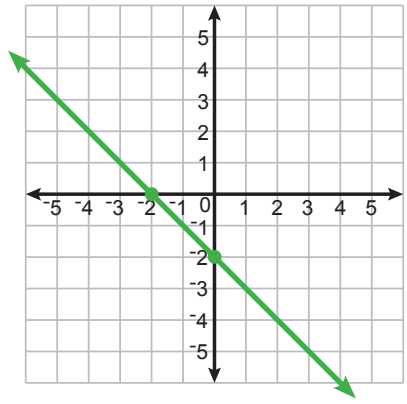
2 $y = 1x + 2$



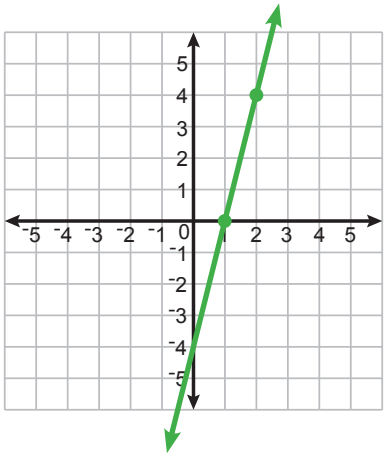
3 $y = -1x + 2$



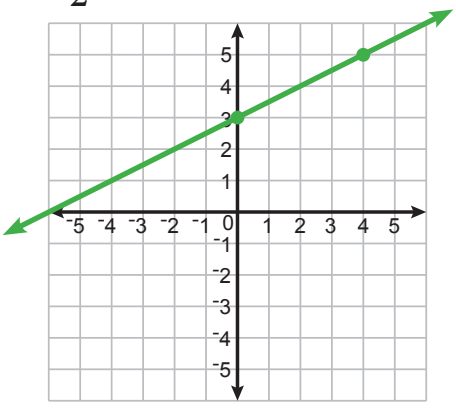
4 $y = -x - 2$



5 $y = 4x - 4$



6 $y = \frac{x}{2} + 3$



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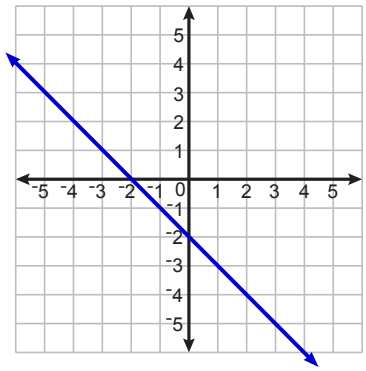
Slope & y-intercept (Graphs)

AB-BLF 2

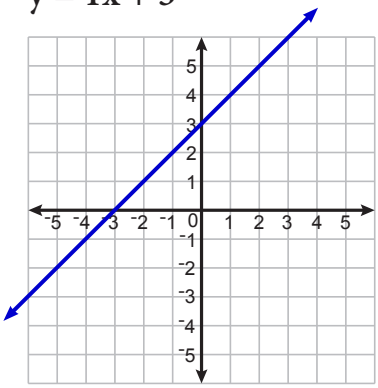
Instructions: Determine the slope and y-intercept of each linear function below.

1 $y = -x - 2$



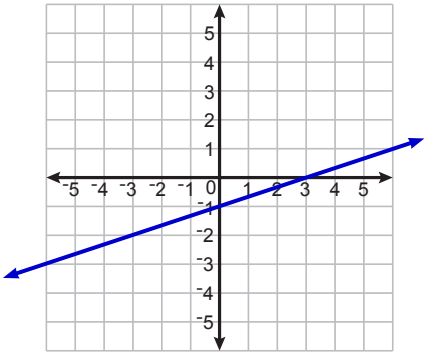
Slope: -1 y-intercept: -2

2 $y = 1x + 3$



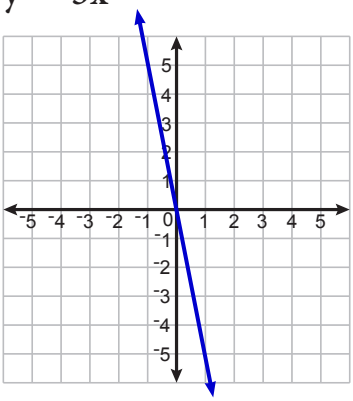
Slope: 1 y-intercept: 3

3 $y = \frac{x}{3} - 1$



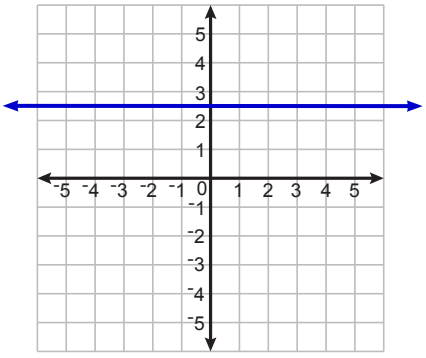
Slope: $\frac{1}{3}$ y-intercept: -1

4 $y = -5x$



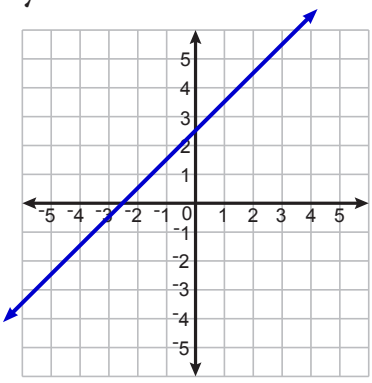
Slope: -5 y-intercept: 0

5 $y = 2.5$



Slope: 0 y-intercept: 2.5

6 $y = x + 2.5$



Slope: 1 y-intercept: 2.5

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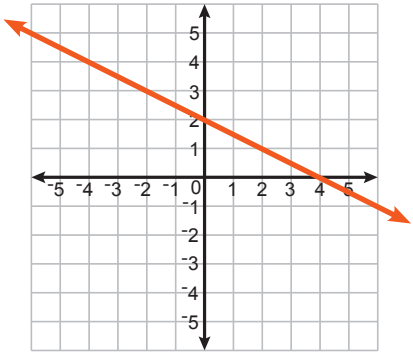
Graphing Linear Functions - Set 2

AB-BLF 3

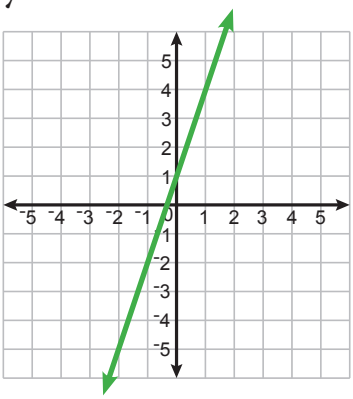
Instructions: Graph each linear functions AND determine its slope and y-intercept.

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



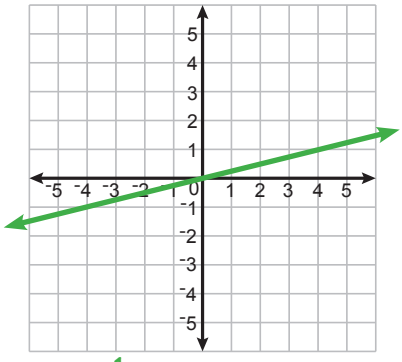
Slope: $-\frac{1}{2}$ y-intercept: 2

2 $y = 3x + 1$



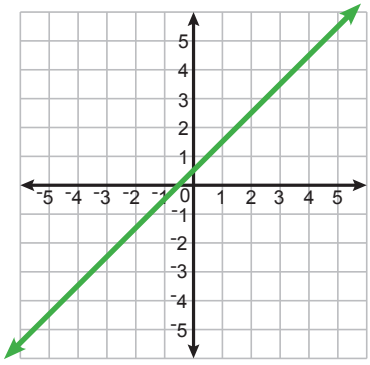
Slope: 3 y-intercept: 1

3 $y = \frac{x}{4}$



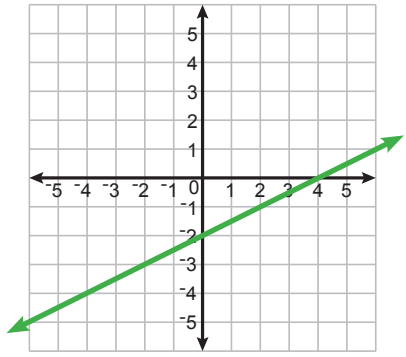
Slope: $\frac{1}{4}$ y-intercept: 0

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



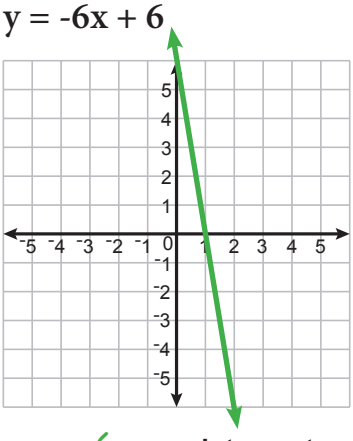
Slope: 1 y-intercept: $\frac{1}{2}$

5 $y = 0.5x - 2$



Slope: 0.5 y-intercept: -2

6 $y = -6x + 6$



Slope: -6 y-intercept: 6

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Slope-Intercept Form

AB-BLF 4

Instructions: Determine the slope and y-intercept of each linear function below. If the equation is not in "Slope-Intercept Form", then rearrange it so it is.

1 $y = 4x + 7$

Slope: 4

y-intercept: 7

2 $y + 2 = 5x$

$-2 \quad -2$

$y = 5x - 2$

Slope: 5

y-intercept: -2

3 $y - 1 = -2x$

$+1 \quad +1$

$y = -2x + 1$

Slope: -2

y-intercept: 1

4 $y = -x$

$y = -1x + 0$

Slope: -1

y-intercept: 0

5 $y = 7 - 3x$

$y = -3x + 7$

Slope: -3

y-intercept: 7

6 $(2)\frac{y}{2} = x(2)$

$y = 2x + 0$

Slope: 2

y-intercept: 0

7 $5 + y = 1 + 2x$

$-5 \quad -5$

$y = 2x - 4$

Slope: 2

y-intercept: -4

8 $(3)\frac{y}{3} = \frac{x}{6}(3)$

$y = \frac{1}{2}x + 0$

Slope: 1/2

y-intercept: 0

9 $(2)\frac{y}{2} = (x + 1)(2)$

$y = 2x + 2$

Slope: 2

y-intercept: 2

10 $y + x = 3 + x$

$-x \quad -x$

$y = (0x) + 3$

Slope: 0

y-intercept: 3

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Converting to Slope-Intercept Form

AB-BLF 5

Instructions: Convert each linear function into "Slope-Intercept Form" (y = mx + b).

1 $4x + 2y = 8$

$-4x \qquad -4x$

$\frac{2y}{2} = \frac{-4x}{2} + \frac{8}{2}$

$y = -2x + 4$

2 $\frac{y}{2} - x = 4x - 6$

$+x \qquad +x$

$(2)\frac{y}{2} = (5x - 6)(2)$

$y = 10x - 12$

3 $\frac{3y}{3} = \frac{3}{3} - \frac{6x}{3}$

$y = 1 - 2x$

$y = -2x + 1$

4 $\frac{-2y}{-2} = \frac{6}{-2} - \frac{1x}{-2}$

$y = -3 + \frac{1}{2}x$

$y = \frac{1}{2}x - 3$

5 $\frac{y}{2} - 4 = \frac{x}{3}$

$+4 \qquad +4$

$(2)\frac{y}{2} = \left(\frac{x}{3} + 4\right)(2)$

$y = \frac{2}{3}x + 8$

6 $y + 3 = \frac{x}{5} - 2y$

$+2y \qquad +2y$

$\frac{1}{3}(3y + 3) = \left(\frac{1}{5}x\right)\frac{1}{3}$

$y + 1 = \frac{1}{15}x$

$y = \frac{1}{15}x - 1$

7 $\frac{2(y - 3)}{2} = \frac{x}{2} + \frac{10}{2}$

$y - 3 = \frac{1}{2}x + 5$

$+3 \qquad +3$

$y = \frac{1}{2}x + 8$

8 $(y - 3) = 4(x - 1)$

$y - 3 = 4x - 4$

$+3 \qquad +3$

$y = 4x - 1$