
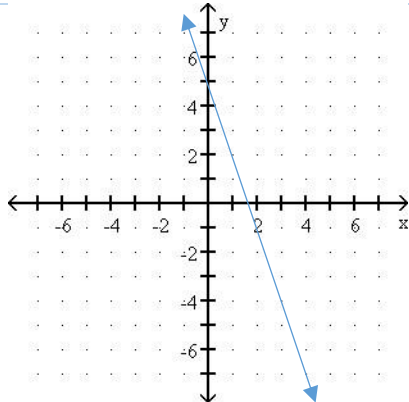


Math Boot Camp Sampler

Depending on which course you are enrolled in, we may not cover all the topics listed.

	Topic	Problem
1	Order of Operations	a. Simplify $\frac{8 \div 4(2)}{2^2 - 4[3 + 2(5 - 7)]}$ b. $\left(\frac{1}{3} + \frac{1}{6}\right)^2 + \left(\frac{3}{2} \cdot \frac{4}{9}\right)^2$
2	Evaluating Expressions	Evaluate $-2^2 + \frac{2}{3}a^2 + (-4)^2 - (-2^2) - 4b$ when $a = -3$ and $b = -15$
3	Solving Formulas	Solve $P = 2L + 2W$ for W
4	Solving Linear Equations	Solve $2(4b - 3) = \frac{2}{3}(6b + 15)$ for b
5	Graphing Compound Inequalities	Graph $x < 2$ and $x \geq -3$.
6	Percents	56 is 35% of what number?
7	Graphing Lines	Graph the equation $3x + y = 5$
8	Slope	Find the slope of the line, $7x - 5y = 16$.
9	Writing Linear Equations	Write an equation of the line passing through $(-3, 9)$ and $(-2, 5)$. Write in the form $Ax + By = C$.
10	Functions	a. Is a graph, with the following coordinates, a function: $(4, 5), (5, 4), (8, 5), (3, 2), (-3, -2)$ b. Evaluate the function, $f(x) = -3x^2 - 2x + 5$, at -2 .
11	Domain/Range (Interval Notation)	What is the domain & range of $y = \sqrt{x - 2}$?
12	Factoring Polynomials	Factor $5x^2 + 13x - 6$.
13	Solving Quadratic Equations	Solve $x^2 - 4x + 1 = 0$
14	Simplifying Expressions	a. Simplify $(x - 2)^2 - (3x^2 - 5)$ b. Simplify $\frac{-3x^{-7}}{x^2}$

	Answer
1	a. $\frac{1}{2}$ b. $\frac{25}{36}$
2	82
3	$W = \frac{P-2L}{2}$ or $\frac{P}{2} - L$
4	$b = 4$
5	
6	160
7	
8	Slope = $\frac{7}{5}$
9	$4x + y = -3$
10	a. It is a function because every x-value pairs to exactly 1 y-value. (Note: This function is NOT one-to-one since every y is NOT paired with exactly one x.) b. $f(-2) = -3$
11	D: $(2, \infty)$ R: $(0, \infty)$
12	$(x + 3)(5x - 2)$
13	$x = 2 \pm \sqrt{3}$
14	a. $-2x^2 - 4x + 9$ b. $-\frac{3}{x^9}$