

Week 1 Alg 1 Big Ideas Math Part 1

Monday, April 6, 2020 3:13 PM

Big Ideas Math::Assignment Preview

4/6/20, 2:56 PM

Copy all problems on your notebook.
 ✖ show all your work 😊

Algebra 1: CC 2015 Section 1 Exercises Chapter 1 Review Exercises

Exercise 1

Solve the equation.
 $z + 3 = -6$

$z = \square$

$$\begin{array}{r} z + 3 = -6 \\ -3 \quad -3 \\ \hline z = -9 \end{array}$$

Exercise 2

Solve the equation.
 $2.6 = -0.2t$

$t = \square$

$$\begin{array}{r} 2.6 = -0.2t \rightarrow -0.2t = 2.6 \\ -0.2 \quad -0.2 \\ \hline t = -13 \end{array}$$

Exercise 3

Solve the equation.
 $-\frac{n}{5} = -2$

$n = \square$

$$\begin{array}{r} -\left(-\frac{n}{5}\right) = (-2) \cdot (-1) \\ \times \quad \frac{n}{5} = 2 \cdot 5 \\ \hline n = 10 \end{array}$$

Exercise 4

Solve the equation.
 $3y + 11 = -16$

$y = \square$

$$\begin{array}{r} 3y + 11 = -16 \\ -11 \quad -11 \\ \hline 3y = -27 \\ \frac{3y}{3} = \frac{-27}{3} \\ \hline y = -9 \end{array}$$

Exercise 5

Solve the equation.
 $6 = 1 - b$

$b = \square$

$$\begin{array}{r} 6 = 1 - b \rightarrow 1 - b = 6 \\ -1 \quad -1 \\ \hline -b = 5 \\ \hline b = -5 \end{array}$$

Exercise 6

Solve the equation.
 $n + 5n + 7 = 43$

$n = \square$

$$\begin{array}{r} n + 5n + 7 = 43 \\ 6n + 7 = 43 \\ -7 \quad -7 \\ \hline 6n = 36 \\ \frac{6n}{6} = \frac{36}{6} \\ \hline n = 6 \end{array}$$

https://www.bigideasmath.com/BIM/teacher/assignment/preview?show...lg1_Ch1_REVIEW&classroomId=bad1d13f-a4de-4531-81f0-7749470a2483 Page 1 of 3

Big Ideas Math::Assignment Preview

4/6/20, 2:56 PM

Exercise 7

Solve the equation.
 $-4(2z + 6) - 12 = 4$

$z = \square$

$$\begin{array}{r} -4(2z + 6) - 12 = 4 \\ -8z - 24 - 12 = 4 \\ -8z - 36 = 4 \\ +36 \quad +36 \\ \hline -8z = 40 \\ -8 \quad -8 \\ \hline z = -5 \end{array}$$

Exercise 8

Solve the equation.
 $\frac{3}{2}(x - 2) - 5 = 19$

$x = \square$

$$\begin{array}{r} \frac{3}{2}(x - 2) - 5 = 19 \cdot 2 \\ 3(x - 2) - 10 = 38 \\ 3x - 6 - 10 = 38 \\ 3x - 16 = 38 \\ +16 \quad +16 \\ \hline 3x = 54 \\ \frac{3x}{3} = \frac{54}{3} \\ \hline x = 18 \end{array}$$

Exercise 9

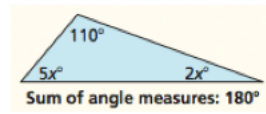
Solve the equation.
 $6 = \frac{1}{5}w + \frac{7}{5}w - 4$

$w = \square$

$$\begin{array}{r} 6 = \frac{1}{5}w + \frac{7}{5}w - 4 \\ 6 + 4 = \frac{1}{5}w + \frac{7}{5}w - 4 + 4 \\ 10 = \frac{1}{5}w + \frac{7}{5}w \\ 10 = \frac{8}{5}w \\ +20 \quad +20 \\ \hline 50 = 8w \\ \frac{50}{8} = \frac{8w}{8} \\ \hline 6.25 = w \end{array}$$

Exercise 10

Find the value of x . Then find the missing angle measures of the polygon.



$x = 10^\circ$

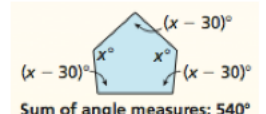
$5x^\circ = 50^\circ$

$2x^\circ = 20^\circ$

$$\begin{array}{r} 110 + 5x + 2x = 180 \\ 110 + 7x = 180 \\ -110 \quad -110 \\ \hline 7x = 70 \\ \frac{7x}{7} = \frac{70}{7} \\ \hline x = 10 \end{array}$$

Exercise 11

Find the value of x . Then find the missing angle measures of the polygon.



$x = 126^\circ$

All angles labeled $(x - 30)^\circ$ are $126 - 30 = 96^\circ$

$$\begin{array}{r} x - 30 + x - 30 + x + x - 30 + x - 30 + x = 540 \\ 5x - 90 = 540 \\ +90 \quad +90 \\ \hline 5x = 630 \\ \frac{5x}{5} = \frac{630}{5} \\ \hline x = 126 \end{array}$$

https://www.bigideasmath.com/BIM/teacher/assignment/preview?show...lg1_Ch1_REVIEW&classroomId=bad1d13f-a4de-4531-81f0-7749470a2483 Page 2 of 3

Big Ideas Math::Assignment Preview

4/6/20, 2:56 PM

Solve the equation.
 $3n - 3 = 4n + 1$

- all real numbers
- $n = -4$
- $n = 4$
- no solution

$$\begin{array}{r} 3n - 3 = 4n + 1 \\ +3 \quad +3 \\ \hline 3n = 4n + 4 \\ -4n \quad -4n \\ \hline -n = 4 \\ \hline n = -4 \end{array}$$

Exercise 13

Solve the equation.
 $5(1 + x) = 5x + 5$

- all real numbers
- $x = 0$
- $x = -1$
- no solution

$$\begin{array}{r} 5(1 + x) = 5x + 5 \\ 5 + 5x = 5x + 5 \\ -5 \quad -5 \\ \hline 5x = 5x \\ -5x \quad -5x \\ \hline 0 = 0 \\ \text{Always true} \end{array}$$

Exercise 14

Solve the equation.
 $3(n + 4) = \frac{1}{2}(6n + 4)$

- all real numbers
- $n = 10$
- $n = -2$
- no solution

$$\begin{array}{r} 3(n + 4) = \frac{1}{2}(6n + 4) \\ 3n + 12 = 3n + 2 \\ -12 \quad -12 \\ \hline 3n = 3n - 10 \\ -3n \quad -3n \\ \hline 0 = -10 \\ \text{Not true} \end{array}$$

https://www.bigideasmath.com/BIM/teacher/assignment/preview?show...lg1_Ch1_REVIEW&classroomId=bad1d13f-a4de-4531-81f0-7749470a2483 Page 3 of 3

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Algebra 1: CC 2015
Section 3 Exercises
 Chapter 3 Review Exercises

Exercise 8
 Evaluate $f(x) = x + 8$ when $x = -3, 0,$ and 5 .

$f(-3) = -3 + 8 = 5$
 $f(0) = 0 + 8 = 8$
 $f(5) = 5 + 8 = 13$

Exercise 9
 Evaluate $g(x) = 4 - 3x$ when $x = -3, 0,$ and 5 .

$g(-3) = 4 - 3(-3) = 4 + 9 = 13$
 $g(0) = 4 - 3(0) = 4 + 0 = 4$
 $g(5) = 4 - 3(5) = 4 - 15 = -11$

Exercise 10
 Find the value of x so that the function has the given value.
 $f(x) = 7x - 3(x) = 49$

$7x - 3x = 49$
 $4x = 49$
 $x = \frac{49}{4}$

Exercise 11
 Find the value of x so that the function has the given value.
 $f(x) = -5x - 1(x) = 19$

$-5x - 1x = 19$
 $-6x = 19$
 $x = -\frac{19}{6}$

Exercise 12

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 1 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $g(x) = -2x - 3$.

$g(x) = -2x - 3$
 $y\text{-int} = -3$
 slope = $-\frac{2}{1}$
 down 2 units, right 1 unit
 or
 up 2 units, left 1 unit

Exercise 13

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 2 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $h(x) = \frac{2}{3}x + 4$.

$h(x) = \frac{2}{3}x + 4$
 $y\text{-int} = 4$
 slope = $\frac{2}{3}$
 up 2 units, right 3 units
 or
 down 2 units, left 3 units

Exercise 14

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 3 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $8x - 4y = 16$.

solve for y :
 $8x - 4y = 16$
 $-8x -8x -4y = 16 - 8x$
 $-4y = 16 - 8x$
 $-4y = -8x + 16$
 $y = -4x + 4$
 $y = ax - 4$
 $y\text{-int} = -4$
 slope = $\frac{2}{1}$
 up 2 units, right 1 unit
 or
 down 2 units, left 1 unit

Exercise 15

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 4 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $-12x - 3y = 36$.

solve for y :
 $-12x - 3y = 36$
 $+12x +12x -3y = 36 +12x$
 $-3y = 36 + 12x$
 $-3y = 12x + 36$
 $-3y = 12x + 36$
 $-3y = 12x + 36$
 $y = -4x - 12$
 $y\text{-int} = -12$
 slope = $-\frac{4}{1}$
 down 4 units, right 1 unit
 or
 up 4 units, left 1 unit

Exercise 16

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 5 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $y = -5$.

$y = -5$
 y always = -5

Exercise 17

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 6 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph $x = 6$.

$x = 6$
 x always = 6

Exercise 18
 The points represented by the table lie on a line. What is the slope of the line?
 Their identify the slope, y-intercept, and x-intercept of the graph.

x	y
6	15
11	11
16	7
21	3
26	-1

slope = change in $y = \frac{\Delta y}{\Delta x}$
 change in x
 $m = \frac{6}{5}$

$-\frac{5}{6}$
 $-\frac{6}{5}$
 0
 $\frac{6}{5}$
 The slope is undefined.

Exercise 19

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 7 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

The points represented by the table lie on a line. What is the slope of the line?
 Their identify the slope, y-intercept, and x-intercept of the graph.

x	y
6	15
11	11
16	7
21	3
26	-1

slope = change in $y = \frac{\Delta y}{\Delta x}$
 change in x
 $m = \frac{3}{0}$
 $m = \text{error or undefined}$

$-\frac{3}{0}$
 $-\frac{0}{3}$
 0
 1
 $\frac{3}{0}$
 The slope is undefined.

Exercise 20
 The points represented by the table lie on a line. What is the slope of the line?

x	y
4	16
6	14
8	12
10	10
12	8
14	6
16	4
18	2
20	0
22	-2
24	-4
26	-6
28	-8
30	-10

slope = $\frac{\Delta y}{\Delta x}$
 $m = \frac{0}{1}$
 $m = 0$

$-\frac{1}{2}$
 $-\frac{1}{3}$
 0
 1
 0
 The slope is undefined.

Exercise 21

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 8 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph the linear equation $y = 2x + 4$. Then identify the x-intercept.

$y = 2x + 4$
 $y\text{-int} = 4$
 slope = $\frac{2}{1}$
 $x\text{-intercept} = -2$

$x\text{-intercept} = -2$

Exercise 22

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 9 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph the linear equation $-5x + y = -10$. Then identify the x-intercept.

$-5x + y = -10$
 $+5x +5x + y = -10 +5x$
 $y = 5x - 10$
 $y\text{-int} = -10$
 slope = $\frac{5}{1}$
 $x\text{-intercept} = 2$

$x\text{-intercept} = 2$

Exercise 23

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 10 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

Graph the linear equation $x + 3y = 9$. Then identify the x-intercept.

$x + 3y = 9$
 $-x -x + 3y = 9 -x$
 $3y = -x + 9$
 $y = -\frac{1}{3}x + 3$
 $y\text{-int} = 3$
 slope = $-\frac{1}{3}$
 $x\text{-intercept} = 9$

$x\text{-intercept} = 9$

Exercise 24

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 11 of 12

Big Ideas Math: Assignment Preview 4/7/20, 2:41 PM

A linear function f models a relationship in which the dependent variable decreases 2 units for every 3 units the independent variable increases. Graph f when $f(0) = 2$. Then identify the slope, y-intercept, and x-intercept of the graph.

slope = $-\frac{2}{3}$
 $y\text{-intercept} = 2$
 $x\text{-intercept} = 3$

$\frac{x}{3} \quad \frac{y}{2}$
 $\frac{1}{3} \quad \frac{2}{2}$
 $m = -\frac{2}{3}$
 $y\text{-int} = 2$
 $x\text{-int} = 3$

https://www.bigideasmath.com/BigIdeasMath/assignment/preview?book_id=131446&4531-8110-7749470a2483 Page 12 of 12