Chapter 2 Introduction

Practice with Evaluating and Solving Equations/Functions

Function Notation

- Function notation is a way of representing functions algebraically.

- It helps us identify the independent and dependent quantities.

- The function $f(x)$ is read as "f of x".
  - x = independent variable
  - $f(x)$ = dependent variable

Rewrite each function using function notation.

1. $y = 3x - 8$

$f(x) = 3x - 8$

2. $y = 3x^2 + 6x - 1$

$f(x) = 3x^2 + 6x - 1$

3. $y = 3^t + 8$

$f(t) = 3^t + 8$

4. $y = |s - 2|$

$f(s) = |s - 2|$

Evaluate each of the following.

1. $2a + 4$ when $a = 5$

14

2. $3w - 2$ when $w = -8$

-26

3. $f(x) = 4x + 9$ when $x = 2$

17

4. $f(x) = 2x - 4$ when $x = -1$

-6

Solve each equation.

1. $x - 4 = -9$

$x = -5$

2. $\frac{n}{6} = 5$

$n = 30$

3. $5c = -15$

$c = -3$

4. $6a + 2 = -4$

$a = -1$

5. $\frac{r}{4} + 3 = 9$

$r = 24$

6. $3(k + 8) = 21$

$k = -1$

Substitute for *f*(*x*) and solve for *x*.

1. $f(x) = x - 4$ *when* $f(x) = 10$

x = 14

2. $f(x) = 2x + 28$ *when* $f(x) = 328$

x = 150

3. $f(x) = 4x - 10$ *when* $f(x) = 86$

x = 24

4. $f(x) = x + 4$ *when* $f(x) = 2x - 8$

x = 12