

Lesson 3-5

Example 1

Write a variable expression. Let n represent “a number.”

- a. six less than a number
b. twelve more than a number
c. a number divided by seven
d. one less than nine times a number

Solution

- a. $n - 6$
b. $n + 12$
c. $\frac{n}{7}$
d. $9n - 1$ $9n$ means multiply n by 9.

Example 2

Evaluate each expression. Let $x = 3$, $y = -4$, and $z = 5$.

- a. $x - 8$
b. $36 \div y$
c. $4x - y$
d. $2y - 4z$

Solution

- a. $x - 8$
 $3 - 8 = -5$
b. $36 \div y$
 $36 \div (-4) = -9$
c. $4x - y$
 $4 \cdot 3 - (-4) = 12 + 4$
 $= 16$
d. $2y - 3z$
 $2 \cdot (-4) - 3 \cdot 5 = -8 - 15$
 $= -23$

Example 3

Write an expression for each situation.

- a. n nickels at 5 cents each
- b. c cookies divided equally among 3 children
- c. 8 more than b books
- d. y years decreased by 10

Solution

a. $5 \cdot n$ or $5n$

b. $c \div 3$ or $\frac{c}{3}$

c. $b + 8$

d. $y - 10$