**1-1 Study Guide and Intervention**

***Variables and Expressions***

**Write Verbal Expressions** An **algebraic expression** consists of one or more numbers and variables along with one or more arithmetic operations. In algebra, **variables** are symbols used to represent unspecified numbers or values. Any letter may be used as a variable.

**Example: Write a verbal expression for each algebraic expression.**

**a. 6**

the product of 6 and *n* squared

**b. – 12*m***

the difference of *n* cubed and twelve times *m*

**Exercises**

**Write a verbal expression for each algebraic expression.**

**1.** *w* – 1 **2.**

**3.** 81 + 2*x* **4.** 12*d*

**5.**  **6.**

**7.** 2 + 4 **8.**

**9.** 2 **–** 3 **10.**

**11.**  **12.** 7

**13.** 3*x* + 4 **14.**

**15.** 3 + 2 **16.** 4( + 1)

**1-1 Study Guide and Intervention** *(continued)*

***Variables and Expressions***

**Write Algrebraic Expressions** Translating verbal expressions into algebraic expressions is an important algebraic skill.

**Example: Write an algebraic expression for each verbal expression.**

**a. four more than a number *n***

The words *more than* imply addition.

four more than a number *n*

4 + *n*

The algebraic expression is 4 + *n*.

**b. the difference of a number squared and 8**

The expression *difference of* implies subtraction.

the difference of a number squared and 8

– 8

The algebraic expression is – 8.

**Exercises**

**Write an algebraic expression for each verbal expression.**

**1.** a number decreased by 8

**2.** a number divided by 8

**3.** a number squared

**4.** four times a number

**5.** a number divided by 6

**6.** a number multiplied by 37

**7.** the sum of 9 and a number

**8.** 3 less than 5 times a number

**9.** twice the sum of 15 and a number

**10.** one-half the square of *b*

**11.** 7 more than the product of 6 and a number

**12.** 30 increased by 3 times the square of a number