

## 8-1

## Study Guide and Intervention

*Multiplying Monomials*

**Multiply Monomials** A **monomial** is a number, a variable, or a product of a number and one or more variables. An expression of the form  $x^n$  is called a **power** and represents the product you obtain when  $x$  is used as a factor  $n$  times.

*Exercises***Simplify.**

1.  $y(y^5)$

2.  $n^2 \cdot n^7$

3.  $(-7x^2)(x^4)$

4.  $x(x^2)(x^4)$

5.  $m \cdot m^5$

6.  $(-x^3)(-x^4)$

7.  $(2a^2)(8a)$

8.  $(rs)(rs^3)(s^2)$

9.  $(x^2y)(4xy^3)$

10.  $\frac{1}{3}(2a^3b)(6b^3)$

11.  $(-4x^3)(-5x^7)$

12.  $(-3j^2k^4)(2jk^6)$

13.  $(5a^2bc^3)\left(\frac{1}{5}abc^4\right)$

14.  $(-5xy)(4x^2)(y^4)$

15.  $(10x^3yz^2)(-2xy^5z)$