

# Practice

Lessons 10.1 to 10.5

Use an exponent to rewrite each product.

1.  $rss$

2.  $ccdd$

3.  $pppp$

Find the value of each power.

4.  $n^5$  when  $n$  is 2

5.  $t^2$  when  $t$  is 8

6.  $x^3$  when  $x$  is  $-2$

Multiply.

7.  $d^4 \cdot d$

8.  $r^4 \cdot r^4$

9.  $t^2 \cdot t^6$

10.  $ab \cdot a$

11.  $3x^4 \cdot 4xy^3$

12.  $d^3h \cdot d^3h$

13.  $m^2n \cdot mn^2$

14.  $p^5 \cdot qp^3$

15.  $q^8h \cdot 6q^3h$

16.  $m^4n^5 \cdot m^3n^3$

17.  $(a^4)^2$

18.  $(n^3)^6$

Divide.

19.  $x^7 \div x^6$

20.  $12a^5 \div 6a$

21.  $a^3b \div a$

22.  $\frac{8d^9}{2d^6}$

23.  $\frac{y^6}{y^5}$

24.  $\frac{c^6d}{c^4}$

25.  $\frac{x^6y^4}{xy}$

26.  $\frac{m^4n}{m^2}$

27.  $\frac{5g^5h^4}{g^3h}$

28.  $\frac{b^9c^5}{b^3c^4}$

29.  $\frac{20a^6b^3}{4a^4b}$

30.  $\frac{10g^6h^2}{5gh}$

**Practice**

Lessons 10.6 to 10.8

Multiply.

1.  $x^5 \cdot x^0$

2.  $a^3b \cdot a^4b^0$

3.  $x^5yz^0 \cdot x^0y^3z^0$

Divide.

4.  $\frac{a^6}{a^6}$

5.  $\frac{x^6y^4}{xy^4}$

6.  $\frac{c^3d^7}{c^3d^3}$

7.  $\frac{g^4h^6}{g^4h}$

8.  $\frac{a^3b^5c^7}{a^2b^5}$

9.  $\frac{k^5l^6}{k^5l^6}$

10.  $\frac{x^4y^2z^3}{x^4y^2z^3}$

11.  $\frac{m^4n}{m^3n}$

Multiply. Write using positive exponents.

12.  $d^{-3} \cdot d^5$

13.  $r^4 \cdot r^{-7}$

14.  $a^3b^{-2} \cdot a^{-4}b^6$

Divide. Write using positive exponents.

15.  $\frac{r^5}{r^7}$

16.  $\frac{y^6}{y^7}$

17.  $\frac{x^9y^2}{xy^{-7}}$

Find each number named in scientific notation.

18.  $2.87 \times 10^2$

19.  $7.2 \times 10^{-3}$

20.  $8.666 \times 10^5$

21.  $1.29 \times 10^{-4}$

22.  $4.862 \times 10^5$

23.  $5.5 \times 10^{-2}$