

## Independent Practice

In Exercises 5–16, evaluate the expression.

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

8.  $\frac{(-3)^9}{(-3)^9}$

11.  $\frac{7^4 \cdot 7}{7^7}$

14.  $(-\frac{2}{3})^3$

6.  $\frac{8^3}{8^1}$

9.  $\frac{2^2}{2^{-3}}$

12.  $(\frac{3}{4})^2$

15.  $(-\frac{4}{5})^2$

7.  $\frac{(-4)^5}{(4)^5}$

10.  $\frac{8^3 \cdot 8^2}{8^5}$

13.  $(\frac{5}{3})^3$

16.  $(\frac{9}{6})^{-1}$

In Exercises 17–28, simplify the expression.

17.  $(\frac{2}{x})^4$

20.  $x^3 \cdot \frac{1}{x^2}$

23.  $\frac{4xy^3}{2y} \cdot \frac{5xy^{-3}}{x^2}$

26.  $\frac{6x^{-2}y^2}{xy^{-3}} \cdot \frac{(4x^2y)^{-2}}{xy^2}$

18.  $\frac{x^4}{x^5}$

21.  $x^7 \cdot \frac{1}{x^9}$

24.  $\frac{16x^3y}{-4xy^3} \cdot \frac{-2xy}{-x}$

27.  $\frac{7x^{-1}y^3}{x^2y^{-2}} \cdot \frac{(3xy^2)^{-1}}{xy}$

19.  $(\frac{1}{x})^6$

22.  $\frac{3x^2y^2}{3xy} \cdot \frac{6xy^3}{3y}$

25.  $\frac{-9x^5y^7}{x^2y^3} \cdot \frac{(2xy)^2}{-6x^2y^2}$

28.  $(\frac{2xy^{-2}y^4}{3yx^{-1}})^{-2} \cdot (\frac{4xy}{2x^{-1}y^3})^2$