

LESSON
7.2**Practice A**

For use with the lesson "Apply Exponent Properties Involving Quotients"

Name the property demonstrated by the example.

1. $\frac{x^5}{x^3} = x^{5-3} = x^2$

2. $\left(\frac{a}{b}\right)^4 = \frac{a^4}{b^4}$

3. $\frac{2m^8}{m^6} = 2m^{8-6} = m^2$

Fill in the blanks.

4. $\frac{3^8}{3^5} = 3^{\square} \square^5$
 $= 3^{\square}$

5. $\left(\frac{3}{4}\right)^4 = \frac{3^{\square}}{4^{\square}}$

6. $\frac{8^6}{8^4 \cdot 8^2} = \frac{8^{\square}}{8^{\square}}$
 $= 8^{\square}$

Simplify the expression. Write your answer using exponents.

7. $\frac{4^7}{4^3}$

8. $\frac{9^{10}}{9^7}$

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

10. $\frac{(-5)^4}{(-5)^3}$

11. $\frac{(-7)^5}{(-7)^1}$

12. $\left(\frac{1}{4}\right)^5$

13. $\left(\frac{5}{3}\right)^7$

14. $\left(\frac{2}{7}\right)^9$

15. $4^5 \cdot \frac{1}{4^2}$

Simplify the expression.

16. $\frac{1}{y^5} \cdot y^{11}$

17. $z^3 \cdot \frac{1}{z^2}$

18. $\frac{1}{m^4} \cdot m^8$

19. $\left(\frac{x}{y}\right)^3$

20. $\left(\frac{a}{b}\right)^{13}$

21. $\left(\frac{1}{z}\right)^9$

- 22. Internet Users**
- The table shows the numbers of Internet users in selected countries in 2001.

Country	Albania	Jamaica	Marshall Islands	Romania
Internet Users	10^4	10^5	10^3	10^6

- How many times greater is the number of users from Romania than the number of users from the Marshall Islands?
- How many times greater is the number of users from Albania than the number of users from the Marshall Islands?
- How many times greater is the number of users from Jamaica than the number of users from the Marshall Islands?
- How many times greater is the number of users from Romania than the number of users from Albania?