Name _____ Class _____ Date _____

Practice 4-8

Exponents and Division

Complete each equation.

1. $\frac{8^n}{8^7} = 8^2,\ n =$ _____

2. $\frac{12x^5}{4x} = 3x^n,\ n =$ _____

3. $\frac{1}{h^5} = h^n,\ n =$ _____

4. $\frac{p^n}{p^8} = p^{-6},\ n =$ _____

5. $\frac{1}{81} = 3^n,\ n =$ _____

6. $\frac{12^4}{12^n} = 1,\ n =$ _____

Simplify each expression.

7. $\frac{a^3}{a^7}$ _____

8. $\frac{j^5}{j^6}$ _____

9. $\frac{x^7}{x^7}$ _____

10. $\frac{k^5}{k^9}$ _____

11. $\frac{9x^8}{12x^5}$ _____

12. $\frac{2f^{10}}{f^5}$ _____

13. $\frac{3y^4}{6y^{-4}}$ _____

14. n^{-5} _____

15. $\frac{3xy^4}{9xy}$ _____

16. $(-15)^0$ _____

17. $\frac{15h^6k^3}{5hk^2}$ _____

18. $4b^{-6}$ _____

Write each expression without a fraction bar.

19. $\frac{a^7}{a^{10}}$ _____

20. $\frac{4x^2y}{2x^3}$ _____

21. $\frac{x^3y^4}{x^9y^2}$ _____

22. $\frac{12mn}{12m^3n^5}$ _____

23. $\frac{16s^2t^4}{8s^5t^3}$ _____

24. $\frac{21e^4f^2}{7e^2}$ _____

25. Write three different quotients that equal 4^{-5}.

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