

Lesson 2 Homework Practice

Powers and Exponents

Write each expression using exponents.

1. $3 \cdot 3 \cdot m$

2. $\left(\frac{1}{4}\right)\left(\frac{1}{4}\right)\left(\frac{1}{4}\right)$

3. $2 \cdot d \cdot 5 \cdot d \cdot d \cdot 5$

4. $p \cdot (-9) \cdot p \cdot (-9) \cdot p \cdot q \cdot q$

5. $g \cdot (-7) \cdot (-7) \cdot g \cdot h \cdot (-7) \cdot h$

6. $x \cdot \frac{1}{8} \cdot x \cdot x \cdot y \cdot \frac{1}{8} \cdot y \cdot x$

Evaluate each expression.

7. $(-8)^4$

8. $\left(\frac{1}{5}\right)^3$

9. $\left(-\frac{3}{5}\right)^5$

10. $(-2)^3 + 5^2$

11. $3^4 - 5^2$

12. $(-2)^5 - (-2)^4$

13. $4^3 \div 2^3$

14. $5^3 \cdot 2^3$

15. $1^7 + (-3)^4$

ALGEBRA Evaluate each expression.

16. $r^3 - s$, if $r = 5$ and $s = 4$

17. $m^2 - n^3$, if $m = 6$ and $n = 2$

18. $f - g^4$, if $f = 3$ and $g = -5$

19. $(x^5 - y^2)^2 + x^3$, if $x = 2$ and $y = 8$

20. Replace \square with $<$, $>$, or $=$ to make a true statement: $2^4 \square 4^2$.

21. ISLANDS Florida has about $2^2 \cdot 3^2 \cdot 5^3$ islands (over 10 acres). About how many islands is this?