

Lesson
1.5
Extra Practice

Write the product using exponents.

1. $\frac{3}{8} \cdot \frac{3}{8} \cdot \frac{3}{8} \cdot \frac{3}{8} \cdot \frac{3}{8} \cdot \frac{3}{8}$

2. $0.4 \cdot 0.4 \cdot 0.4 \cdot 0.4 \cdot 0.4$

3. $(-2.5) \cdot (-2.5) \cdot (-2.5) \cdot (-2.5)$

4. $-(1.4 \cdot 1.4 \cdot 1.4)$

5. $-\left(\frac{2}{7} \cdot \frac{2}{7} \cdot \frac{2}{7} \cdot \frac{2}{7} \cdot \frac{2}{7} \cdot \frac{2}{7} \cdot \frac{2}{7}\right)$

6. $\left(-\frac{1}{5}\right) \cdot \left(-\frac{1}{5}\right) \cdot \left(-\frac{1}{5}\right) \cdot \left(-\frac{1}{5}\right)$

Evaluate the expression.

7. -1.8^2

8. $\left(\frac{4}{9}\right)^3$

9. $\left(-\frac{6}{7}\right)^4$

10. 3.5^3

11. 0.8^2

12. $-\left(\frac{2}{5}\right)^5$

13. Your friend evaluates the expression. Is your friend correct? Explain your reasoning.

$$\begin{aligned} \left(\frac{3}{5}\right)^3 &= \frac{3^3}{5^3} \\ &= \frac{9}{15} \end{aligned}$$

Simplify each expression. Write your answer as a power.

14. $\left(\frac{1}{8}\right)^3 \cdot \left(\frac{1}{8}\right)^7$

15. $(1.9^6)^2$

16. $\frac{(-1.46)^7}{(-1.46)^3}$

17. $\left(\frac{3}{8}\right)^0 \cdot \left(\frac{4}{5}\right)^6$

18. $\left(-\frac{2}{7}\right)^2 \cdot \left(-\frac{2}{7}\right)^8$

19. $\frac{3.4^5}{3.4^2}$

20. $(0.26^3)^9$

21. $\left(\frac{2}{9}\right)^9 \cdot \left(\frac{3}{4}\right)^0$

22. The area of the rectangle is 1.6^9 square centimeters. Find the width of the rectangle.

