Write the product using exponents.   *(Section 9.1)*

1. $(-5) \cdot (-5) \cdot (-5) \cdot (-5)$

2. $\dfrac{1}{6} \cdot \dfrac{1}{6} \cdot \dfrac{1}{6} \cdot \dfrac{1}{6} \cdot \dfrac{1}{6}$

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

4. $7 \cdot 7 \cdot m \cdot m \cdot m$

Evaluate the expression.   *(Section 9.1)*

5. 5^4

6. $(-2)^6$

Simplify the expression. Write your answer as a power.   *(Section 9.2)*

7. $3^8 \cdot 3$

8. $\left(a^5\right)^3$

Simplify the expression.   *(Section 9.2)*

9. $(3c)^4$

10. $\left(-\dfrac{2}{7}p\right)^2$

Simplify the expression. Write your answer as a power.   *(Section 9.3)*

11. $\dfrac{8^7}{8^4}$

12. $\dfrac{6^3 \cdot 6^7}{6^2}$

13. $\dfrac{\pi^{15}}{\pi^3 \cdot \pi^9}$

14. $\dfrac{t^{13}}{t^5} \cdot \dfrac{t^8}{t^6}$

15. SEQUENCE The nth term of a sequence can be found by evaluating $10^n - 1$. Copy and complete the table to find the first four terms of the sequence.   *(Section 9.1)*

n	$10^n - 1$
1	
2	
3	
4	

16. CRITICAL THINKING Is $(ab)^2$ equivalent to ab^2? Explain.   *(Section 9.2)*

17. EARTHQUAKES An earthquake of magnitude 3.0 is 10^2 times stronger than an earthquake of magnitude 1.0. An earthquake of magnitude 8.0 is 10^7 times stronger than an earthquake of magnitude 1.0. How many times stronger is an earthquake of magnitude 8.0 than an earthquake of magnitude 3.0?   *(Section 9.3)*