

Unit 7: Exponents and Scientific Notation

CONCEPT

Name: _____ Date: _____

Show your work where needed and write each answer as a single number or value. Notation: 2^3 means 2 to the 3rd power; $a \times b$ means multiply; $\text{sqrt}()$ means square root.

1. Write 2^5 as a whole number.

Answer: _____

2. Simplify using the product rule and write your answer as a single power with base 3: $3^2 \times 3^4$.

Answer: _____

3. Simplify using the quotient rule and write your answer as a single power with base 5: $5^7 / 5^3$.

Answer: _____

4. Evaluate the power of a power and write your answer as a single power with base 2: $(2^3)^2$.

Answer: _____

5. Use the zero-exponent rule to evaluate 8^0 .

Answer: _____

6. Write 4^{-2} as a fraction.

Answer: _____

7. Write the number 6000 in scientific notation.

Answer: _____

8. Write the number 0.0007 in scientific notation.

Answer: _____

9. Write the scientific notation number 3×10^4 as a standard whole number.

Answer: _____

10. Write the scientific notation number 5×10^{-3} as a standard decimal.

Answer: _____

11. Which is greater: 2×10^5 or 9×10^4 ? Write the greater value in scientific notation.

Answer: _____

12. Multiply and write your answer in scientific notation: $(2 \times 10^3) \times (4 \times 10^2)$.

Answer: _____