

Unit 7: Exponents and Scientific Notation

PRACTICE · SET 2

Name: _____ Date: _____

Show your work where needed and write each answer in the simplest exact form (a number, fraction, or scientific notation as requested).

1. Simplify using exponent rules and write as a single power of 3: $3^5 \times 3^4$. Give your answer in the form 3^n .

Answer: _____

3. Simplify using exponent rules and write as a single power of 5: $(5^3)^4$. Give your answer in the form 5^n .

Answer: _____

5. Evaluate: 7^0 .

Answer: _____

7. Write the number 0.00082 in scientific notation.

Answer: _____

9. Divide and write the result in scientific notation: $(9 \times 10^8) / (3 \times 10^2)$.

Answer: _____

11. Evaluate as a single whole number: $6^2 \times 6^0$.

Answer: _____

2. Simplify using exponent rules and write as a single power of 2: $2^{10} / 2^6$. Give your answer in the form 2^n .

Answer: _____

4. Evaluate the expression with a negative exponent. Write your answer as a fraction: 4^{-2} .

Answer: _____

6. Write the number 3.6×10^5 in standard (ordinary) form.

Answer: _____

8. Multiply and write the result in scientific notation: $(2 \times 10^3) \times (4 \times 10^5)$.

Answer: _____

10. The mass of object A is 5×10^7 grams and the mass of object B is 5×10^4 grams. How many times greater is the mass of A than the mass of B?

Answer: _____

12. Which is larger, 7×10^6 or 8×10^5 ? Write the larger value in standard (ordinary) form.

Answer: _____