

SOL Mini-Challenge

Expressions and Operations

A.10

Read and solve.

1. Which is equivalent to $(2x^2)^3$?

- A. $8x^6$
- B. $6x^6$
- C. $8x^5$
- D. $6x^5$

2. The diameter of a barium atom is 0.0000004346 millimeters. In scientific notation it is

- A. 43.46×10^{-8} mm
- B. 4.346×10^7 mm
- C. 4.346×10^{-7} mm
- D. 4346.0×10^{-7} mm

3. Evaluate $(4.67 \times 10^7) \bullet (3.24 \times 10^3)$.

- A. 1.51308×10^{11}
- B. 1.51308×10^{21}
- C. 7.91×10^{10}
- D. 15.1308×10^{10}

4. 648,392 in scientific notation is—

- A. 648.392×10^3
- B. 6.48392×10^5
- C. 6.48392×10^{-5}
- D. $.648392 \times 10^{-6}$

5. Which is equivalent to $(6x^2)(3x^4)(2x^5)^3$?

- A. $17x^{21}$
- B. $108x^{21}$
- C. $144x^{21}$
- D. $144x^{40}$

6. Which is equivalent to $(8x^4y^2)^5$?

- A. $390,625 x^{20}y^{10}$
- B. $32,768 x^{20}y^{10}$
- C. $40 x^{20}y^{10}$
- D. $40 x^9y^7$