

## 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.  $43.46 \times 10^{-8}$  mm
- B.  $4.346 \times 10^7$  mm
- C.  $4.346 \times 10^{-7}$  mm
- D.  $4346.0 \times 10^{-7}$  mm

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

- A.  $1.51308 \times 10^{11}$
- B.  $1.51308 \times 10^{21}$
- C.  $7.91 \times 10^{10}$
- D.  $15.1308 \times 10^{10}$

4. 648,392 in scientific notation is—

- A.  $648.392 \times 10^3$
- B.  $6.48392 \times 10^5$
- C.  $6.48392 \times 10^{-5}$
- 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.  $40 x^9y^7$