Name _____ Date _____

1. Write the following in exponential form (e.g., $100 = 10^2$).

   a. 10,000 = _____

   b. 1,000 = _____

   c. 10 × 10 = _____

   d. 100 × 100 = _____

   e. 1,000,000 = _____

   f. 1,000 × 1,000 = _____

2. Write the following in standard form (e.g., $5 \times 10^2 = 500$).

   a. 9×10^3 = _____

   b. 39×10^4 = _____

   c. $7{,}200 \div 10^2$ = _____

   d. $7{,}200{,}000 \div 10^3$ = _____

   e. 4.025×10^3 = _____

   f. 40.25×10^4 = _____

   g. $72.5 \div 10^2$ = _____

   h. $7.2 \div 10^2$ = _____

3. Think about the answers to Problem 2(a–d). Explain the pattern used to find an answer when you multiply or divide a whole number by a power of 10.

4. Think about the answers to Problem 2(e–h). Explain the pattern used to place the decimal in the answer when you multiply or divide a decimal by a power of 10.