MDE 010, Quiz #9, Summer 2023 Name _____

Instructions: Show all work. Give exact answers (improper fractions) and do no round unless specifically asked to do so. If you work the problem in your calculator you can write keystrokes to show work for partial credit.

1. Determine the number of significant figures in the following numbers.
   a. 2,580,593

   b. 254,500

2. Express the following numbers using standard scientific notation.
   a. 0.000000007

   b. 840,000

3. Simplify the following problems. Write your answer both in scientific notation and in decimal form with the correct significant digits.
   a. $(9.6 \times 10^{-3})(5.84 \times 10^{2}) =$

   b. $(3.21 \times 10^{5}) \div (7.2 \times 10^{-2}) =$

   c. $\frac{1.357 \times 10^{-27}}{2.3 \times 10^{-3}}$.