1. Solve the following problems. Report with the correct number of significant figures and appropriate units:
   a) $3.414 \text{ s} + 10.02 \text{ s} + 58.325 \text{ s} + 0.00098 \text{ s}$
   b) $2.326 \text{ h} - 0.10408 \text{ h}$
   c) $10.19 \text{ m} \times 0.013 \text{ m}$
   d) $140.01 \text{ cm} \times 26.042 \text{ cm} \times 0.0159 \text{ cm}$
   e) $80.23 \text{ m} / 2.4 \text{ s}$
   f) $(4.301 \text{ kg} - 2.317 \text{ kg}) / 1.9 \text{ cm}^3$

2. An experiment calls for 16.156 g of substance A, 28.2 g of substance B, 0.0058 g of substance C, and 9.44 g of substance D.
   a) How many significant digits are there in each measurement?
   b) What is the total mass of substances in this experiment?
   c) How many significant digits are present in the answer to part b?

3. Write the following numbers in scientific notation and indicate the number of significant digits.
   a) 156.90
   b) 12,000
   c) 0.00690
   d) 0.0345

4. Solve the following problems. Record your answers using scientific notation with the proper number of significant digits.
   a) $(6.6 \times 10^{-8}) / (3.30 \times 10^{-4}) =$
   b) $(7.4 \times 10^{10}) / (3.7 \times 10^3) =$
   c) $(2.67 \times 10^{-3}) - (9.5 \times 10^{-4}) =$
   d) $(2.3 \times 10^{-4}) \times (2.0 \times 10^{-3}) =$
   e) $(2.5 \times 10^{-6}) \times (3.0 \times 10^{-7}) =$
   f) $(1.56 \times 10^{-7}) + (2.43 \times 10^{-8}) =$