Name:_____   Period:_____   Date:_____

Practice Problems for SI Base Units, Prefixes, and Derived Units
Due: Tomorrow beginning of class, if not done in class today. Show ALL work.

1. List the **base unit** (no prefix needed) that would be used to measure the following things:

    a. Perimeter of a rectangle   _____

    b. Temperature of a liquid during a reaction   _____

    c. Time between waves at the beach   _____

    d. Mass of 25 quarters   _____

    e. Amount of a substance   _____

2. For the following questions, fill in the blanks by determining the relationship between the two prefixes.   *Example:*   *100 centimeters = 1 meter*

    a. ____kilometers = _____ meter   d. _____ megagram = _____ grams

    b. _____ centimeters = _____ kilometer   e. _____ milligrams = _____megagram

    c. _____ milligrams = _____ gram   f. _____ deciliters = _____ liter

3. For the following questions, give the abbreviation for the unit:

    a. centimeter   _____   d. microgram _____

    b. millisecond   _____   e. megameter _____

    c. kilogram   _____   f. gigaliter   _____

4. What is the density of a block of marble that occupies 310 cm^3 and has a mass of 853 g?

5. Diamond has a density of 3.26 g/cm^3. What is the mass of a diamond that has a volume

    of 0.35 cm^3?

6. What is the volume of a sample of liquid mercury that has a mass of 76.2 g, given that the

    density of mercury is 13.6 g/mL?