Name _____

Date _____ Pd ____

Chemistry – Unit 1 - Worksheet 6

Dimensional Analysis

Use the factor-label method to make the following conversions. Remember to use the appropriate number of sf's in your answer.

Part 1

1. 74 cm x _____ = _____ meters

2. 8.32×10^{-2} kg x _____ = _____ grams

3. 55.5 mL x _____ = _____ cm^3

4. 0.00527 cal x _____ = _____ kilocalories

5. 9.52×10^{-4} m x _____ = _____ micrometers

6. 41.0 mL x _____ = _____ liters

7. 6.0×10^{-1} g x _____ = _____ mg

8. 8.34×10^{-9} cg x _____ = _____ g

9. 5.0×10^{3} mm x _____ = _____ m

10. 1 day x _____ x _____ x _____ = _____ seconds

11. 5×10^{4} mm x _____ x _____ = _____ km

12. 9.1×10^{-13} kg x _____ x _____ = _____ ng

13. 1 year x _____ x _____ = _____ hours (approximately)

14. 4.22 cL x _____ x _____ = _____mL

15. 1 mile x _____ x _____ = _____ inches

Part 2

1. How many nickels could you trade for 250 yen? $1 = 150 yen.

2. Your school club sold 600 tickets to a chili supper. The chili recipe for 10 persons requires 2 teaspoons of chili powder. How many teaspoons of chili powder will you need altogether?

3. How many cups of chili powder will you need? Three teaspoons (tsp) equal one tablespoon (TBS) and 16 tablespoons equal 1 cup.

4. How many seconds in a year? (assume 30 days in an average month)

5. Chloroform is a liquid once used for anesthetic. What is the volume of 5.0 g of chloroform?
   The density of chloroform 1.49 g/mL

6. How many inches long is a football field?

7. How many m^3 is 4.6 cm^3? Express your answer in scientific notation.

8. How many mg is 59.0 kg? Express your answer in scientific notation.