**Dimensional Analysis Practice**

**Use Dimensional Analysis to solve the following problems. Show all work. Remember to use sig figs and box your final answer.**

Common Conversion Factors:

1 meter = 100 centimeters 1 yard = 3 ft 1 in =2.54 cm 1000 mL = 1 L

1 meter = 1,000 millimeters 1 ft = 12 in 1000 g = 1 kg 30 mL = 1 oz

1 kilometer = 1,000 meters 1 mile = 5,280 ft 1 kg = 2.2 lb

1. Convert 3,644 centimeters to meters.

2. Convert 74.5 kilometers to meters.

3. Convert 3.4 kg to pounds (lbs).

4. How many milliliters are in a 20.0 oz. bottle of soda?

5. Susanna is 5.50 ft tall. What is her height in centimeters?

6. If we are in class for 1.5 hours, how many seconds are we in class?

7. An ant is about 4.0 mm long. How many feet is this?

8. How many inches are in 1.2 x 105 miles?

9. How many seconds are in a year?

10. Convert 28 km to cm.

11. Convert 50 g to kg.

12. Convert 45 kg to mg.

13. Convert 450 m/s to m/h.

14. Convert 50 L to mL.

15. Convert 85 cm/min to m/s.

16. Convert the speed of light 3.0 x 108 m/s to km/day.