

Name: _____

Homework 1 **Unit Conversion Practice Problems**

Do these unit conversion problems by the factor label method on the “Unit Conversion Examples” handout. We also used this method in class when we converted measurements in hands to centimeters. **Be sure to show every step in the unit conversion process!** Also, pay attention to significant figures. You may want to attach a separate page to show all your work.

1. Calculate the height of a 5 foot 10 inch man in m, cm and mm. (1 inch = 2.54 cm)

2. Calculate the capacity in liters of a 10.0 gallon aquarium (1 gallon = 3.78 L)

3. How many seconds are there in 5.0 hours

4. How many meters are there in 3.5 miles (1 mile = 1.61 km)

5. Convert 242.0 lbs to centigrams (1 lb = 454 g)

6. How many liters of water is 3 kg? (The density of water is a g / mL)

7. How many seconds are in (1 non-leap) year?

8. On Mars, a day is 8.864×10^4 seconds long and a year is 5.935×10^7 seconds long.
 - a. How many earth days are there in one Mars day?

 - b. How many earth days are there in one Mars year?