Dimensional Analysis Lab Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Directions: For each of the following you will be taking measurements and using dimensional analysis to convert to different units. Be sure to show your work.

Conversion Factors:

1m = 3.3 ft

1 mi = 5,280 ft

1 lb = .53 kg

1 degree F = 256 K

1 fl oz = 0.029 L

1ft=12in

60 s=1 min

60 min=1hour

1. Measure the circumference of your bicep in centimeters \_\_\_\_\_\_\_\_\_\_\_

Convert the circumference from centimeters to meters \_\_\_\_\_\_\_\_\_\_

Convert this from meters to ft \_\_\_\_\_\_\_\_\_

2. Look up the temperature in degrees Fahrenheit \_\_\_\_\_\_\_\_

Convert this to Kelvin\_\_\_\_\_\_\_\_\_\_

Convert this to dekaKelvin\_\_\_\_\_\_\_\_

3. How tall are you in inches\_\_\_\_\_\_\_\_

Convert this to feet\_\_\_\_\_\_\_\_\_

What is your height in miles \_\_\_\_\_\_\_\_\_\_

4. What is your weight in pounds\_\_\_\_\_\_\_\_\_\_

Convert your weight into kilograms \_\_\_\_\_\_\_\_\_

Convert this to grams\_\_\_\_\_\_\_\_\_

5. A can of pop has 12 oz of fluid

Convert this into Liter\_\_\_\_\_\_\_\_\_\_\_\_

Convert this to milliiters \_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Measure how far you can horizontally you can jump in centimeters\_\_\_\_\_\_\_\_\_\_

Convert this to feet \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Measure how high you can jump vertically in meters \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Convert this to inches \_\_\_\_\_\_\_\_\_\_\_

8. Time how fast you can run 10 meters in seconds \_\_\_\_\_\_\_\_\_\_\_

Convert this to hours \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What was your speed in miles per hour?