**The Extra Fun Estimating and Converting Stuff Lab**

Have you ever wanted to estimate and/or convert things? Of course you have! Let’s see how good you are at doing this in our class. Remember, you need to *estimate* the values being measured. You won’t be downgraded if you are wrong, but I may give bonus points on the participation grade to the lab group that does the best!

1) Estimating length:

* Estimate the height of the ceiling in this room to the nearest meter: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert this to kilometers, using correct sig figs: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert it to miles using correct sig figs. There are 0.61 km in 1 mile: \_\_\_\_\_\_\_\_\_\_\_\_\_

2) Estimating mass:

* Estimate the mass of the red trash can in kilograms: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert this to grams, using correct significant figures: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Find its mass in pounds using your estimate in kg. There are 2.2 lbs in 1 kg: \_\_\_\_\_\_\_\_

3) Estimating temperature:

* Estimate the temperature of a car’s engine in oF: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert this to degrees Celsius (conversion is: (oF – 32) / 1.8): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert the temperature of the car to Kelvin: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4) Estimating number of things:

* Estimate the number of blades of artificial grass on the football field: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Convert this to moles. There are 6.02 x 1023 things in 1 mole: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Postlab question: Which set of units is easiest to use, metric units or Imperial units? Explain your answer.