Physics 1101   Experiment 1   Pre-Laboratory Assignment

Name_____ Instructor name _____

You must show and explain all work neat and organized to receive credit. Please show each step for calculations. YOU MUST TURN IN THIS SHEET to have your assignment graded.

1. (a) Define density and state its units in the SI system of units. (b) What does a negative zero reading on a Vernier caliper mean? (7pts)

2. (a) Calculate the average value for the following experimentally determined numbers: 2.78, 2.53, 2.36, 2.81, and 2.37. (b) If the standard value is 2.66, what is the percent error in your measurement? All numbers have units of cm. Please be careful with significant figures (ppt with instructions is available on Blackboard). (8pts)

3. A rock is placed in a graduated cylinder containing water, and the cylinder is covered to avoid evaporation. The following day the water level has dropped by $5.65\ ml$. No one has had access to the cylinder, and the cylinder has no leaks. What is the most likely explanation for what happened? (5pts)