Kinematics Theory of Gases Quick Sheet

Print Name Ben Giftakis

Section _____ Date _____ TA _____

Data Set # _____

Instructions: Enter, in the spaces provided, the requested results from the experiment you have just completed. Your TA needs to approve this before you leave the lab. Five points will be lost if this is not done. **You should copy this information for yourself before you leave the lab.** Your TA keeps this quick sheet as a record of your attendance.

List the variables and parameters that you studied in this lab?

pressure, temperature, volume, mass

What is the value of gas constant that you have obtained?

Before Rounding:

R = heavy= 8.197E-5 +-1.339E-7 J/mol-K
light= 8.219E-5 +- 2.815E-7 J/mol-K

% diff = Heavy= 1.000%
light = 1.000%

After Rounding:

R = heavy= 8.2E-5 +-1.3E-7 J/mol-K
light= 8.2E-5 +- 2.8E-7 J/mol-K

% diff = Heavy= 1.000%
light = 1.000%

What are the kinetic energies of the particles?

Before Rounding

KE_{heavy} = 6.890E-26 J

After Rounding:

KE_{light} = 6.093E-26 J