PHYS 328
HOMEWORK #2

Due : 6 Sept. 2012

1. Estimate how many air molecules you inhale in each breath. If you never inhale the same air molecule twice, how long would you have to live to inhale every molecule in the atmosphere? Explain all estimates you make and/or cite all references for values you use in solving this problem.

2. Problem 1.16 from the text, page 8, parts a) - c) only. (5 pts for each part)

3. Calculate the rms speed of an oxygen molecule at the surface of the Earth (i.e., room temperature).

4. Problem 1.22 from the text, page 14, parts a) - c) and either d) or e). (5 pts each part)

5. Problem 1.24 from the text, page 17.