# HIP 01

## COMMENTS:

- Problem 1 is a list of suggested Student Workbook Volume 1 problems to practice in your spare time. You do not need to turn these in, they will not be graded. I recommend working through theses before attempting problem 2, or if you get stuck while working on problem 2.
- Problem 2 will be graded based off of the HIP rubric.

(1) CH 11: 9, 10, 11
CH 12: 4, 5, 6, 7, 8

(2) The atmosphere of Mars is composed almost entirely of carbon dioxide, with an average temperature of -63°C. Carbon dioxide is roughly monatomic.
   a. What is the rms speed of a molecule in Mars atmosphere?
   b. What speed would a 1 gram paper clip have if it had the same average kinetic energy as a molecule in Mars atmosphere?
   c. No enhancement this week. Use this extra time to review the first weeks material and bring in questions on Monday.