

Homework #5
AS101 Summer 2006
Dr. Withers

Assigned: 2006.05.26
Due: 2006.05.30, start of class

- 1) Read Chapter 4
- 2) State each of Newton's Laws of Motion. For each law, give an example of its application.
- 3) If a planet orbits the Sun in an elliptical orbit, does its energy change during one orbit? Does its momentum change? Does its angular momentum change? Explain your answers.
- 4) Describe the structure of an atom
- 5) The mass of one proton is 1.67×10^{-27} kg. Neutrons have the same mass and electrons have a much smaller mass. How many protons, neutrons, and electrons are in one molecule of water (symbol: H_2O)? How many molecules are in 1 kg of water?