PHYS 178 – Assignment 1

Due: Monday 18th August 2008

This assignment contributes 2% to your final grade. Please write brief answers directly on the sheet in the spaces provided (and on the back if necessary). The assignment should be turned into the PHYS 178 assignment box on level 2 of E7B, just outside the doorway to E7A.

1. Calculate the density of the Sun. (Yes, you need its mass and radius to answer this!)

2. What are the implications of the crater record in the solar system?

3. Describe the process of "differentiation" that occurs in the history of the terrestrial planets.

4. Describe what is meant by a "subduction zone".

5. The temperature of the atmosphere declines with height above the Earth's surface and then starts increasing at high altitude. Why is this?