

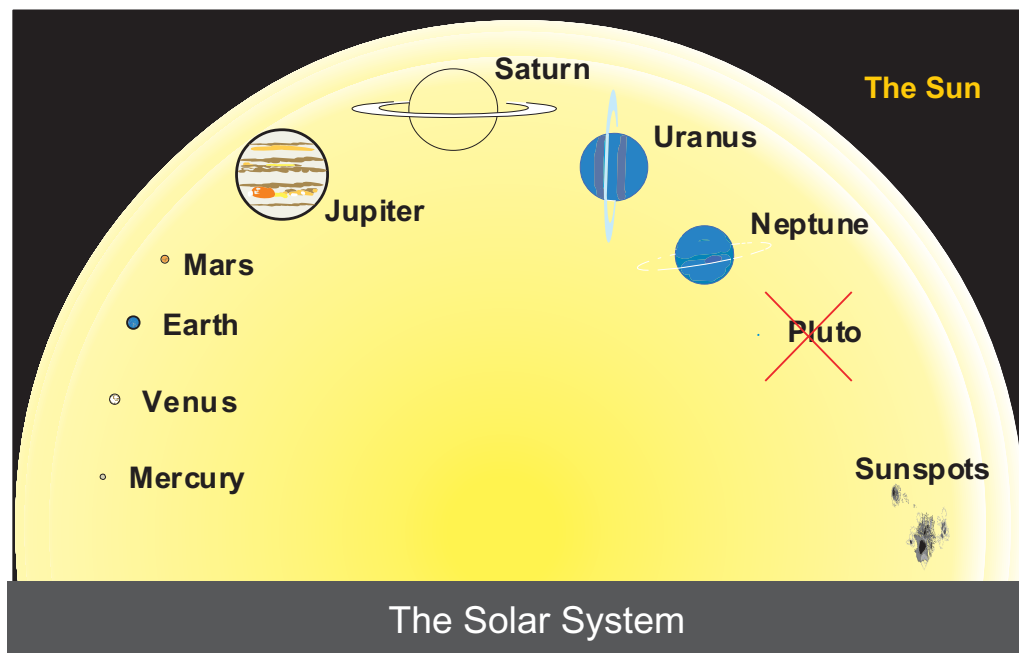
10 Overview of the Solar System

Assign: Read Chapter 19–20 of Carrol and Ostlie (2006)

Before we begin a detailed discussion of the components of the Solar System, it is useful to get an overview of its general features. We begin by surveying properties such as size, mass, density, and orbits of the planets.

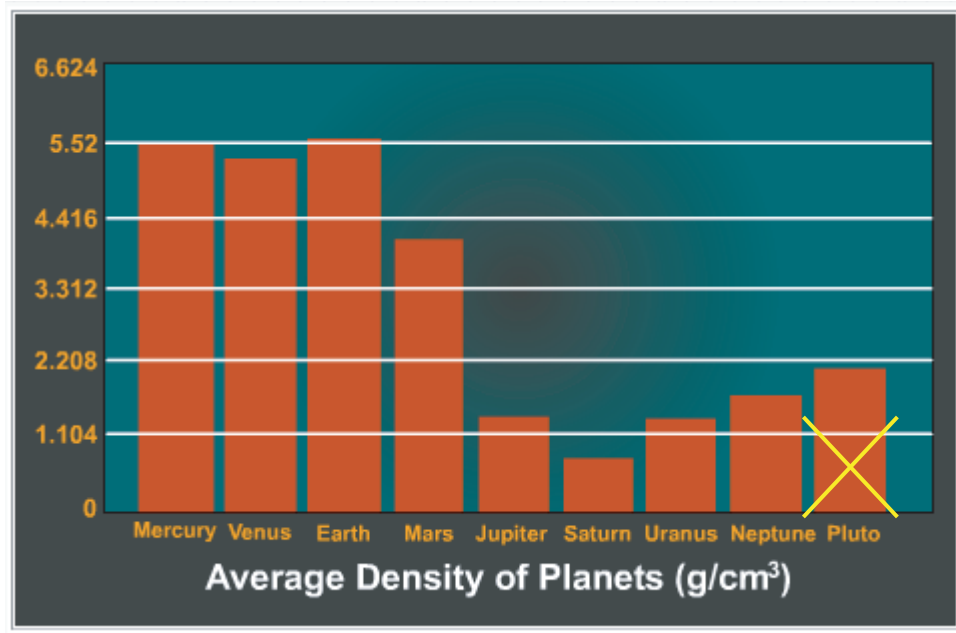
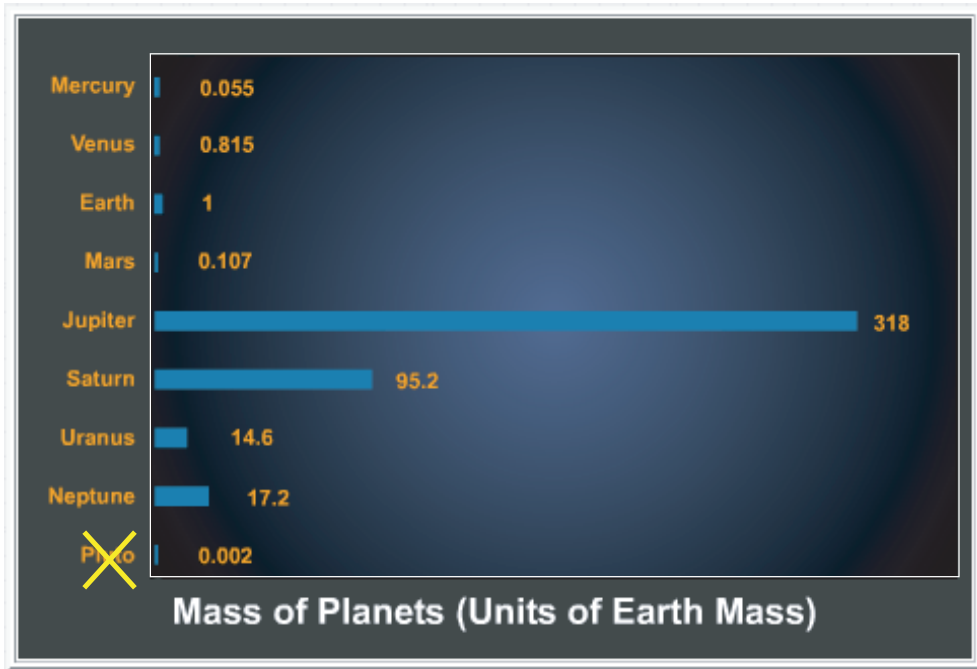
10.1 Relative Radii of Sun and Planets

The Sun and the gas giant planets like Jupiter are by far the largest objects in the Solar System. The other planets are small specks on this scale:



The inner planets have rather small radii while the outer planets have much larger radii. This is probably correlated with solar heating, which caused the planets of the inner Solar System to lose their hydrogen and helium, leaving behind only their rocky parts.

10.2 Mass and Density of Planets



10.3 Orbits of the Planets

- OJTA Animation 3.9 (Motion of Inner Solar System 1994–1998)
http://csep10.phys.utk.edu/OJTA2dev/ojta/course1/copernican/kepler/inersolar_ic/frame.html
- OJTA Animation 7.9 (Solar System Animator)
http://csep10.phys.utk.edu/OJTA2dev/ojta/course1/solarOverview/overview/ssviewer_ic/frame.html
- Current positions of all planets:
<http://www.fourmilab.ch/solar/solar.html>

