

Astronomy 45
Introduction to Astrophysics

Problem Set 2 - Due Friday February 16, 2001

1. Venus has a maximum elongation of $46^{\circ} 20'$. What is its distance from the Sun measured in AU?
2. What is the sidereal period of an inferior planet that appears at greatest Western elongation exactly once a year?
3. The moon has an angular diameter of $32'$ seen from Earth. The Earth has a diameter that is a factor of $8/3$ larger than the Moon. What is the angular diameter of the Earth as seen from the Moon?
4. The apparent magnitude of the Sun is -26.81 . Calculate its absolute magnitude. What is the apparent magnitude of the Sun as viewed from Saturn.