

Astronomy 161 – Introduction to the Solar System
Autumn Quarter 2006
Homework #2

Due Monday, October 16 in class

Instructions:

Answer the 5 questions on the bubble sheet provided with the handout. This handout is just a worksheet: we will only accept homework on bubble sheets available in class during the week.

On the bubble sheet, please fill in the following info:

1. Your full name, **last name first**, first name last, and **remember to bubble in the letters!**
2. Please use only a black **Number 2 Pencil**, no pens or other markers will work.

The assignment is due before class on Monday, October 16. No late homework will be accepted.

This homework assignment consists of the 5 questions below. Each question has equal weight. For questions 1 thru 3 you should use the Internet to do a little research, but be careful to critically consider your sources before choosing an answer – look for authoritative sources (not just the first website that Google turns up).

1. On what day will the Summer Solstice occur in 2019 as seen in Columbus, OH (the dates below are for Eastern Standard Time, which is 5 hours behind Greenwich Mean Time)?
 - a) June 20
 - b) June 22
 - c) June 19
 - d) June 21
 - e) June 23
2. Mars was last in Opposition with the Earth on 2005 November 7. When will Mars be in Opposition again?
 - a) 2006 November 7
 - b) 2008 August 12
 - c) 2007 December 24
 - d) 2010 January 29
 - e) 2287 August 28
3. When was the last time that a Total Solar Eclipse was visible from Hawai'i?
 - a) 1993 June 4
 - b) 1991 July 11
 - c) 1876 March 25
 - d) 2004 October 14

(over)

4. At sunrise, you notice that the planet Jupiter appears high in the sky on your meridian. This means that Jupiter is currently in which configuration?
- Opposition
 - Eastern Quadrature
 - Conjunction
 - Inferior Conjunction
 - Western Quadrature
5. The planet Mongo orbits the Sun once every 3 Earth years in an orbit larger than the Earth's. If today it is in Opposition in Configuration 1 below, when will Mongo next be in Opposition, and in which of the four configurations shown below will it be in? Both planets orbit the Sun counterclockwise as drawn below.
- 9 months (0.75 years), Configuration 4
 - 15 months (1.25 years), Configuration 2
 - 18 months (1.5 years), Configuration 3
 - 12 months (1 year), Configuration 1

