Astronomy 1, Section 24153: Introduction to Astronomy Instructor Dave Badtke
Spring 2009: 11:00-12:20 M&W in Room C104 (707)334-4882
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**Online Reference: www.Badtke.com or www.QCounty.com (follow link to College of Alameda classes)**

## Chapter 1 Questions

1. What is the difference in size between an atom and the diameter of a galaxy like our Milky Way?
2. The Greek philosopher Aristotle thought that the universe was perfect and never changing. Was he right?
3. What are constellations and how do astronomers use them?
4. Go out on a clear night and use figure 1-6 on page 10 to observe the winter triangle of constellations. Can you find them all? Note in your journal what you observe.
5. Why is the celestial sphere such a complicated object?
6. What causes earth's daily cycle? What causes earth's yearly cycle?
7. How many degrees are in a circle? How many arcminutes are in a degree? How many arcseconds are in a minute?
8. Using the astronomer's toolbox on 1-1, measure the approximate angular distance between the stars in Orion's belt.
9. What's the difference between a solar and sidereal period?
10. How many time zones are there? At the equator, what is the approximate distance in miles between time zones? Do you know how to calculate this?
11. What causes the seasons? Why is winter in Alameda colder than summer?
12. What does the precession of the earth's axis mean?
13. What causes the phases of the moon?
14. What causes a lunar eclipse? What causes a solar eclipse?