

## Quiz #7 Takehome: Astrolabe

Name: \_\_\_\_\_

*Due November 10*

To answer the following questions, set your astrolabe so that the star **Altair is rising** (middle of star symbol on eastern horizon). All time references are local solar time (the time read directly from the astrolabe—no conversion). Answers should be given to the nearest degree, nearest 5 minutes, or nearest day.

1. What is Altair's azimuth, to the nearest degree? (Note azimuth lines are every 5°.)
2. What bright star is located at azimuth 270°, altitude 7°? (Note altitude lines are every 2°.)
3. What bright star is just about to cross the meridian?

What is this star's azimuth?

What is this star's altitude?

4. When Altair is rising, is the star Sirius visible?
5. If the date is March 20, what is the time represented by the astrolabe set so that Altair rises (to the nearest 5 minutes)? Remember a.m. or p.m.
6. If the date is October 31 (or November 0), what time does this astrolabe setting represent?

At this date and time, what is the sun's azimuth?

At this date and time, what is the sun's altitude?

7. For the same astrolabe setting (Altair rising), what date is the sun setting? Make your estimate to the nearest day.
8. At the same astrolabe setting, what date would astronomical twilight be ending?