AST101 Take-home #9
Due November 22 or 29

Name: _____

1. The angular distance between the zenith and the celestial equator (CE) (measured along the meridian) is equivalent to:

   a) declination
   b) latitude
   c) longitude
   d) altitude

2. Using the diagram at upper right, the zenith distance of the object (star) is approximately how many degrees?

   a) 90°
   b) 60°
   c) 45°
   d) 30°

3. The zenith distance of the North Celestial Pole (NCP) is measured to be 55°. The latitude of the location is:

4. The altitude of an object on the CE when it is due south is measured to be 35°. The latitude of that location is:

5. A transiting object (on meridian) that resides on the celestial equator has a zenith distance measured to be 60°. The latitude of the location is:

For question #2
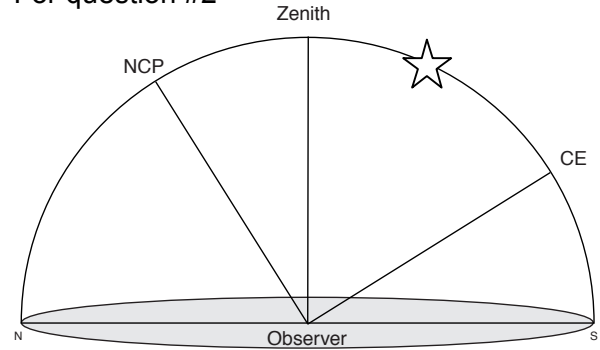
Use diagram below for scratch, as needed.
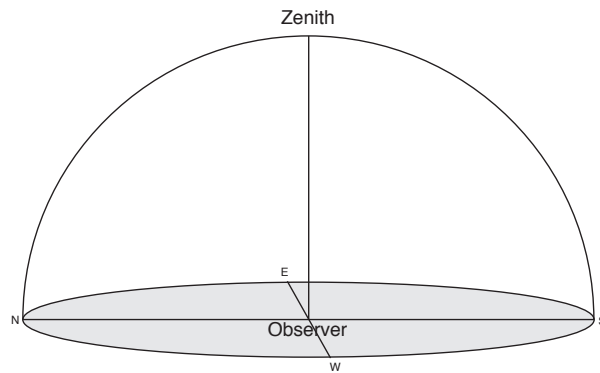
6. The sun's midday altitude on September 21 (Autumnal Equinox) is measured to be 25°. The latitude of the location is:

7. The altitude of a transiting star is measured to be 50°. The star has a declination of -15°. What is the latitude of the location?