Directions: Using the Class Notes: Astronomy, complete the following activity.

I. Apparent Motions

Geocentric Model - _________________________________________________

_______________________________________________________________

Problem 1: ______________________________________________________

_______________________________________________________________

Problem 2: ______________________________________________________

_______________________________________________________________

Match the Terms:

_______ Celestial Object  a. star directly above the north pole and/or south pole

_______ Celestial Sphere  b. the visible portion of the sky

_______ Horizon  c. angular distance measured along the horizon

_______ Zenith  d. long exposure photo providing evidence of rotation

_______ Star Trail  e. the edge of the visible portion of the celestial sphere

_______ Circumpolar Star  f. angular distance measured above the horizon

_______ Polar Star  g. stars that move around a polar star

_______ Altitude  h. a natural object that can be seen in the sky

_______ Azimuth  i. the highest point on the celestial sphere
II. Actual Motions

Heliocentric Model - 

______________________________

______________________________

Rotation - 

______________________________

______________________________

Evidence 1: 

______________________________

______________________________

Evidence 2: 

______________________________

______________________________

Revolution - 

______________________________

______________________________

Label the following:

1. Dates of the solstices and equinoxes
2. Draw in the Major Axis
3. Label the Foci
4. Label the Sun
Eccentricity of a Perfect Circle ____________
Eccentricity of a Straight Line ____________

Eccentricity Problem:

Step 1: As Planet X revolves around a star, calculate the eccentricity of its orbit if the distance between to foci is 5,000,000 km and the length of the major axis is 149,600,000 km [show all work].

Step 2: Compare Planet X's eccentricity of orbit to Earth's orbit. ________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
Supplemental: Annotating Class Notes

Label the Phases of the Moon:

IV. Galaxies and Stars

Fill in the chart below.

<table>
<thead>
<tr>
<th>Star Name</th>
<th>Luminosity</th>
<th>Temperature</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polaris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sun</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deneb</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procyon B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pollux</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

V. The Universe

Universe ____________________________________________

Age of the Universe: ________________

Big Bang - _________________________________________

Evidence 1: ________________________________________

Evidence 2: ________________________________________

Describe the difference between a red shift and blue shift. _________________________________________