

- c) [3:00 PM (9:00 PM minus 6 hours; a few hours past noon)]
- d) [3:00 AM (9:00 PM plus 6 hours; a few hours before sunrise)]
9. [6 PM (sunset)] A first quarter Moon would be located at the top of the orbit shown in Figure 1. It is highest in the sky when the observer is directly beneath it in the drawing. The time for that location is 6 PM.
10. [waning gibbous] At full Moon, the Moon rises as the Sun sets. Each successive night, the Moon rises about 50 minutes later and its phase wanes. At approximately 8:00 pm if an observer were able to see the Moon near the eastern horizon it would be in the waning gibbous phase.
11. [waning crescent; eastern horizon] The Moon is described as a thin sliver indicating that it is in the crescent phase. Because it is visible just before sunset it must be above the horizon before the Sun rises and that can only occur if it is in the waning phase. Following is an example of one student's picture:

Phase: waning crescent
 Direction: southeast

