

ASTR 502 Homework 1 : Space Update activity

(Due 9/9, 8 points)

1. (1 pt) First, install Space Update from the disk or as a digital download. Purchase from Dr. Reiff or download a free 30-day trial from [Space Update](#).

Note - when you install "Space Update", first specify your disk install location, then select "Space Update" at the top. Then also choose "install help" and "install activities". Finally, specify 30 degrees North latitude as your default location (for the sky tonight section).

2. (3 pt) Which planets will be in the evening sky (8 pm, looking West, South, Zenith, and East:

_____ (hint: look near the green line and use "play" button to scroll through the end of the semester).

Which planets will be in the morning sky (5 am, looking East, South, Zenith, and West:

3. (1 pt) Which planets, if any, can be seen in the East in the Evening and also in the West in the morning (perhaps a few days earlier or later)? _____ (These are in OPPOSITION).

4. (1 pt) Can you find Mercury any day(s) this semester? _____ to _____ morning or evening sky? _____ East or West? _____

5. (1 pt) Go to the Solar System module. Click "update data" in the top right hand corner. If it says "new data available", click download. If it says "unwanted files found" select "delete". If it says "no internet connection", download the latest version. What is Pluto's spin period? _____ (Look in the "DWARF" section). What is Charon's orbital period? _____ What is Charon's spin period? _____

6. (1 pt) Read the "[Astronomy Activities for Elementary Students](#)". Look in [Naval Observatory Moon page](#): when will the next new moon be? _____ (note: subtract 5 hours from UT to get CDT). On the day of the next new moon, start watching for the Moon in the west, just after sunset (but before fully dark). (Generally is not visible until 24 hours after new). Start making daily observations of the Moon's altitude, azimuth, and shape, all at the same time of the evening (will be turned in as [Homework 3](#)).

[Last updated 8/26/2019](#)