Exercise 16: Zoom vs Go There

In this exercise you will use the Zoom and Elevation controls and compare and contrast these two features.

Instructions:

Magnify Jupiter

1. Press the **Home** button.
2. Open the Find pane and type in"Jupiter".
3. Double-click on Jupiter's name in the list to centre on Jupiter. If a dialog box shows that Jupiter is beneath the horizon, choose the Best Time option.
4. If Starry Night is displaying a daylight sky, choose **View->Hide Daylight** from the menu to turn off daylight.
5. Click the "+" zoom button to slowly zoom in on Jupiter. As you zoom in, Starry Night automatically shows dimmer stars. Once your field of view reaches about 30 arcminutes, Jupiter will start to look like a ball instead of a point.
6. Continue clicking the "+" zoom button all the way until your field of view is about 6 arcminutes. Note that Jupiter will still not fill the screen.
7. Press the "+" zoom button to continue zooming in on Jupiter. Once you reach a field of view of about 35 arcseconds, Jupiter should fill the screen.
8. Click the "-" zoom button and hold your mouse button down to restore your field of view to 100°.

Traveling to Jupiter

9. Right click on Jupiter and select **Go There** from the menu.
10. In the Viewing Location control, notice the distance between you and Jupiter (about 0.002 au)
11. Click the "+" zoom button to slowly zoom in on Jupiter. Then click the "-" zoom button to slowly zoom out on Jupiter. Notice the distance reading in the Viewing Location control.

Question: When you zoom in and out on Jupiter, does your distance from Jupiter change? If not, what does change when you zoom in and out on Jupiter?

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12. Press the **Decrease and Increase Elevation** buttons.

Question: When you decrease or increase your elevation, does your distance from Jupiter change? If it does, what remains constant?