

Project: The Moons of Jupiter

1. How many moons of Jupiter can you observe?

Below is a figure demonstrating the size and direction of the orbits of the Jovian satellites (the orbits are to scale in relation to the size of Jupiter; the moons radii are not) as seen from both above the plane of orbit (Fig. 1), as well as our view from Earth (Fig. 2).

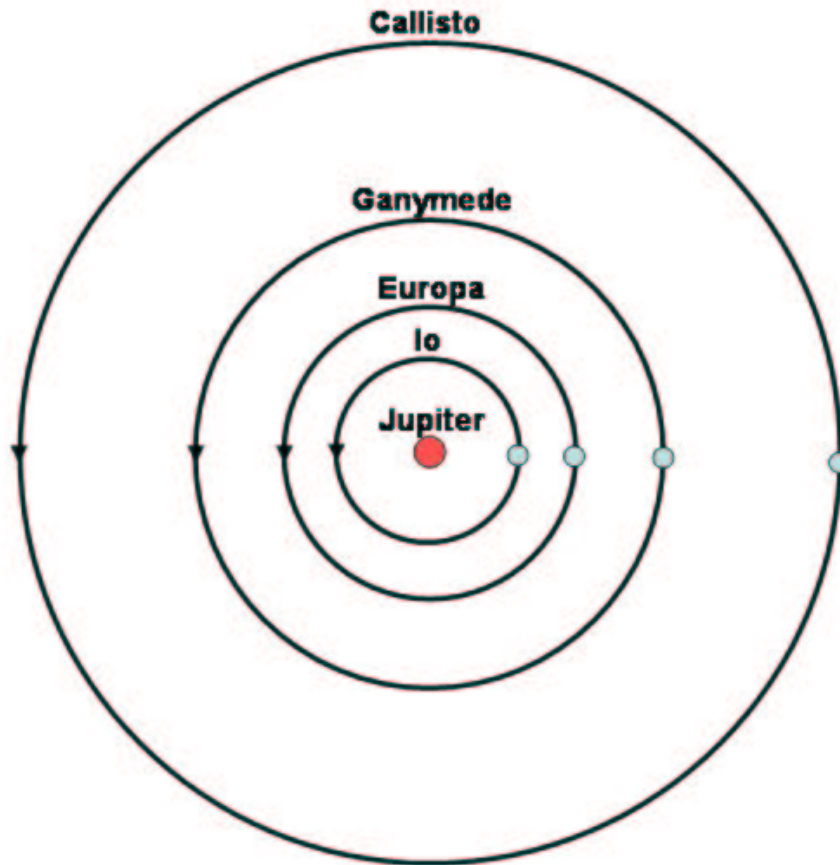


Figure 1: Figure 1



Figure 2: Figure 2

2. Based on these figures (and the fact that the moons may be in a different location than the ones shown), can you tell which moon(s) you observed? If so, label them in your diagram and plot their position on figure 1 above.

Below are two observations of the moons of Jupiter (24 hours apart).

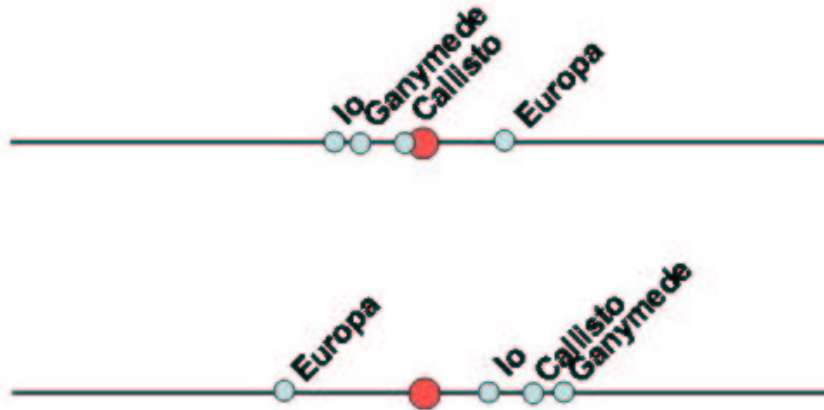


Figure 3: Figure 3

3. Based on these observations, which moon(s) moved in front of Jupiter? Which moon(s) moved behind Jupiter?

4. Based on the orbits on the previous page, which moon moved the greatest amount of its orbit? Which moon moved the least?

5. (a) Given Keplers third law, list the moons in orbit of increasing orbital period (shortest period first).
 - (b) Is this consistent with question #4? Why or why not?