

Solar system Body	Approximate Mass (kg)	Diameter (km)	Distance from the planet (km)	Orbital speed (km/sec)	Orbital Period (days)
Jupiter	$189,000 \times 10^{22}$	142,984			
Earth	$597 \times 10^{22}$	12,756			
Io	$9 \times 10^{22}$	3643	421,600	17	About 2 days
Moon	$7 \times 10^{22}$	3475	384,400	1	About 27 days

**Use the table above to answer the following questions**

- 1) Which has more mass – Earth or Jupiter?
- 2) Comparing Jupiter’s moon “Io” with Earth’s Moon - how are they alike?
- 3) Comparing Jupiter’s moon “Io” with Earth’s Moon - how are they different?
- 4) Comparing Io and the Moon, which planetary satellite travels faster (has a greater orbital speed)?
- 5) Given the results from this inquiry, why do you think that one moon orbits faster than the other?
- 6) Orbital period is the time it takes a revolving object to orbit a central object. Which planetary satellite has a shorter orbital period?
- 7) Explain the relationship between orbital speed and orbital period.