

Planetary Data Analysis

Name: _____

Hypothesis: Make an educated guess about which number in your data set corresponds with each major planet in our solar system.

| | |
|---------|-------|
| Mercury | _____ |
| Venus | _____ |
| Earth | _____ |
| Mars | _____ |
| Jupiter | _____ |
| Saturn | _____ |
| Uranus | _____ |
| Neptune | _____ |

What measurement did you use to make your educated guess? Why?

Analysis:

1. Which number in your data set has the largest Diameter? Mass? Gravity? Why would this planet therefore have the most # of moons? How many moons does it have?
2. Which number is Earth? How do you know? Explain.

3. As Distance from the Sun increases, so does Orbital Period. Why is that? Demonstrate Kepler's 3rd Law with one planets data. Show your work.
4. Planet #6 & #3 has more Mass, a larger Diameter, and more Moons than Earth, but has lower gravity. What could cause this disparity? (Hint: What do we know about Earth that we studied extensively earlier in the school year)
5. List the planet #'s in order using the Distance from the Sun data.
6. Why do you think the Inner Planets have significantly less moons than the Outer Planets? (Hint: Think back to the formation of the solar system)