

Chapter 8 Review Worksheet

1. Brahe and Kepler formed a great team, although they only spent about one year together at the end of Brahe's life. **Explain** how they formed a great partnership.
2. **Describe** Kepler's Three Laws of Planetary Motion.
3. **Sketch** the torsion balance that Cavendish used to measure the value of "G".
4. I have a pickle and sandwich sitting on my plate for lunch. If the pickle has a mass of 200g, the sandwich is 525g, and they are 5cm apart, **determine** how much gravitational attraction is between them.
5. I am on the International Space Station in orbit 420km above the surface of the earth. A grade five student asks me what I think of being some place that has no gravity. I explain that although there is less gravity, there is almost 9.81m/s^2 . **Determine** the acceleration due to gravity where I am.
6. Now the same grade five student asks me how fast I am going in the space station while I orbit. **Determine** my orbital velocity. *Note: If the formula you use is not on the data sheet, you must show how you derived it.*
7. **Explain** how an object traveling with sufficient horizontal velocity can remain in orbit around a large body like the Earth.