Name:

Section:

Discussion Worksheet Week 5

**Conservation of Energy:**

1. Imagine you are at the top of the Space needle (cause I’m from Washington state). You are holding a penny over the edge. Ignore air resistance for this problem. As the penny falls it will convert its potential energy into kinetic energy. *Where are the points that the penny’s energy is completely potential energy & where are the points where it’s completely kinetic energy?*
2. *Describe to me another situation where energy has changed forms.* [Can be from kinetic to potential, vise versa, or other forms briefly mentioned on the slides]

**Gravity Review:**

1. Given the equation for gravitational force: , and knowing that G is constant & that I am telling you M is constant (only the big one). *Tell me what could change to make gravitational force increase, and what could make it decrease.* [If you want you can list all the possibilities, but for the sake of this problem, you’re only required to talk about one property for each scenario]
2. This time consider that I am keeping everything the same in the equation except for M. You can think of this as going to another planet’s orbit. *Would the gravitational force increase or decrease if we went to Mercury? How about Neptune?*