

## Student directions *Gravity Force Lab* activity 2-Advanced

homework

**Learning Goals:** Students will be able to:

- Design experiments that allow you to derive an equation that relates mass, distance, and gravitational force.
- Use measurements to determine the universal gravitational constant.

**Directions:** You will turn in a paper that has 4 parts.

1. Make a data table(s) that includes information that you used to determine the relationships between mass, distance between centers, and gravitational force.
2. Write a procedure that another student could follow to verify your results. The procedure should be in paragraph form.
3. Write a paragraph that explains your reasoning for the procedure design.
4. Use the simulation to find the universal gravitational constant and describe how you determined it.