## Universal Force Gravity Problem With Density

Step 1: Using the size and composition of each of the bodies you were assigned, find their volume and density. Show your calculations for object 1 (showing calculations for object 2 is optional)

|  | Object 1 | Object 2 |
| :---: | :---: | :---: |
| Composition |  |  |
| Radius (m) |  |  |
| Density $\left(\mathrm{kg} / \mathrm{m}^{3}\right)$ |  |  |
| Volume $\left(\mathrm{m}^{3}\right)$ |  |  |
| Mass $(\mathrm{kg})$ |  |  |

Step 2: Below is a picture of your two objects in deep space. Record their masses and the distance between their centers


Step 3: Calculate the force of gravity between these two objects. Show all your work in making this calculation. Enter your answers into the program to make sure you did everything correctly.

