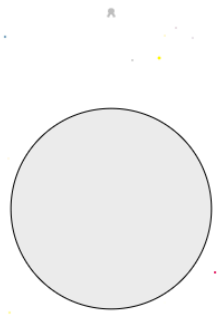# Orbital Motion of a Satellite

Step 1:  In the picture below given the values of all the variables for your problem.  Then in the region to the right of the picture, calculate the circumference of the orbit.  Show all the steps of these calculations neatly in the provided space

Step 2:  Calculate the force of gravity between the satellite and the planet and show your calculation below

Step 3: Use Newton's second law to find the acceleration of the satellite.

Step 4: Use the acceleration of the satellite to find the speed of the satellite.

Step 5: Use the speed of the satellite and the circumference of the orbit to find the period of the satellite and then convert from seconds to hours.  Enter your answers into the program to make sure you did everything correctly.