## Finding Speed of a Satellite

Step 1: In the picture below given the values of all the variables for your problem including the time it took the satellite to make one orbit of the planet. Convert your time to seconds and get the radius of the orbit in meters. Remember the radius is the distance from the center of the planet to the satellite


Step 2: Calculate the circumference of the orbit. Show your calculation below

Step 3: Calculate the speed of the satellite in $\mathrm{m} / \mathrm{s}$. You can also convert this into mph or $\mathrm{km} / \mathrm{hr}$ if they are more familiar units to you. Just make sure you test the $\mathrm{m} / \mathrm{s}$ number when entering the number into the program to check your work

Step 4: What might be different with a real satellite orbit compared to the one we imagined that might make your calculations slightly off of the real answer?

