Project 3 Math 243

Type your solutions using Microsoft Word, Google Docs, or LaTeX (or other document editor). Either print your solutions or send me a PDF file by class on ***Friday, Dec 5****. Your grade will be based on three factors: completeness, correctness, and style. To get full style credit you should write all answers in complete sentences. You may work with a partner and submit one project together, if you prefer. It is okay to discuss the problems with other students, but all of your solutions must be explained in your own words.*

Suppose a small satellite orbits a large planet. The mass of the planet is so much larger than the satellite that we can assume that the planet is stationary at the origin $(x, y, z) = (0, 0, 0)$, and only the satellite is moving. Although the satellite can move in three dimensions x, y, and z, we'll assume that the z-component of the satellite is always zero, so all of the satellite's motion takes place on the (x, y)-plane.