Upload the e-record for:

Experiment #8: Determining the Energy Dissipation in an Asteroid Collision with Earth

Keep in mind the following points:

- Use different (unique) examples to make your e-record worthy of good grades.
- Do not upload pictures of the monitor screen containing the output instead save the figure in MatLab in an appropriate format and include it in the doc file.
- **The final submission must be in pdf format only.**
- Include the solution of the following problem(s) at the end of the e-record.

Exercise Problem:

1. Find the mass of the solid bounded by the planes $x + z = 1$, $x - z = -1$, $y = 0$, and the surface $y = \sqrt{x}$. The density of the solid is $\rho(x, y, z) = 2y + 5$.
2. Consider the asteroid given by the solid region which has the density $1.38 g/cm^3$ approximately at any given point (x, y, z). Calculate the impact of its collision with earth if at the time of impact the velocity is $40 km/sec$. (Consider the dimensions of the solid in meters).