DPGRAPH Assigment #12 - Math 260 – Towers

The purpose of this exercise is to use DPGRAPH to help to set up a double integral used in computing the volume of a solid. The problem is to find the volume of the solid bounded by the surfaces $x^2 + y^2 = 1$, $x^2 + z^2 = 1$, and lying in the first octant.

1. Use DPGRAPH to graph these surfaces. Adjust the bounding box so that only the first octant is shown. This will help in visualizing the region of interest.

2. Set up an iterated integral to compute the volume, and then evaluate it. This is pencil and paper work that you turn in with your plot from Step 1.