

DPGRAPH Assignment #7 - Math 260 – Towers

The purpose of this exercise is to use DPGRAPH to visualize the intersection of a pair of surfaces. We will work with the surfaces

$$x^2 + y^2 = 1$$

$$x \sin(z) = y \cos(z)$$

Here are the specific instructions:

1. Plot the two surfaces given above using DPGRAPH. Use a large enough bounding box so that you can see something interesting. This plot is one of the things you will turn in.
2. Find a vector-valued function (or equivalently, a set of parametric equations) that describes the curve of intersection of the two surfaces.
3. Make another plot in DPGRAPH, this time using the equations you found in step 2. to plot the curve. Check to make sure that this curve looks like the curve of intersection that you can see in the plot you made in step 1.
4. Write the equations you found in step 3 somewhere on the plot you made in step 3.
5. That's it. Turn in your plots.