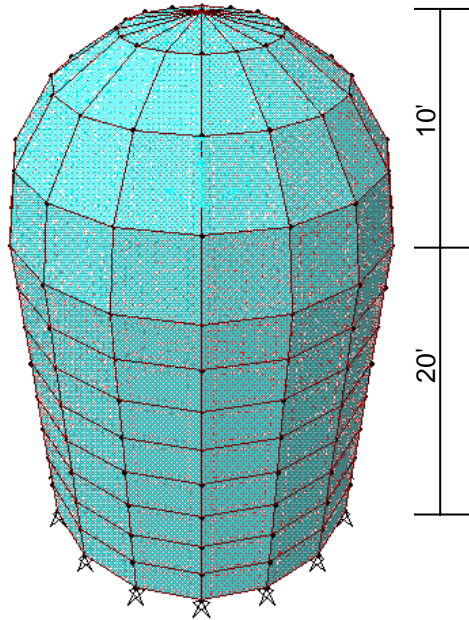


Problem T

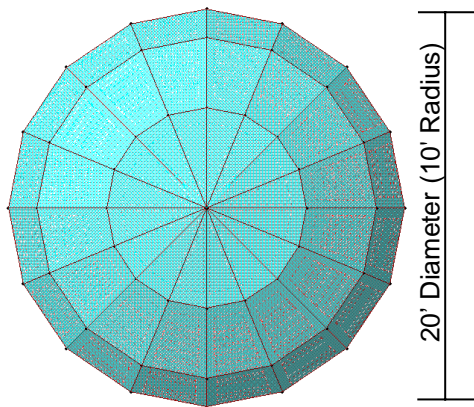
Domed Cylindrical Structure

To Do

Create the model of this cylinder topped by a circular dome. Can you create this model in one minute or less?




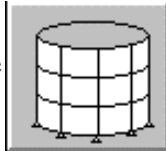


Three Dimensional Perspective View



Top View

Note: Our intent is that you try this problem on your own first. After you have solved it on your own, you can step through our solution if desired. If you have problems trying to create the model, then follow the steps in our solution.

Problem T Solution

1. Click the drop down box in the status bar to change the units to kip-ft. 
2. From the **File** menu select **New Model From Template...** This displays the Model Templates dialog box.
3. In this dialog box click on the **Cylinder** template  button to display the Cylinder dialog box.
4. In this dialog box:
 - Accept the default Number of Circumferential Spaces, 16.
 - Type **8** in the Number of Height Spaces edit box.
 - Type **20** in the Cylinder Height edit box.
 - Type **10** in the Radius edit box.
 - Click the **OK** button.
5. Click in the “X” in the upper right-hand corner of the r-theta Plane @ Z=20 window to close it.
6. Click the **Set Elements** button  on the main toolbar (or select **Set Elements...** from the **View** menu) to display the Set Elements Dialog box.
7. In this dialog box:
 - Check the Fill Elements box.
 - Click the **OK** button.
8. From the **Edit** menu select **Add To Model From Template...** to display the Model Templates dialog box.
9. In this dialog box click on the **Dome** template  button to display the Dome dialog box.
10. In this dialog box:
 - Accept the default Number of Circumferential Spaces, 16.
 - Type **4** in the Number of Segments edit box.

- Type **10** in the Radius edit box.
- Accept the default Roll Down Angle, 90.
- Uncheck the Restraints check box if it is not already unchecked.
- Click the **Advanced** button to display the Location and Orientation dialog box.

Note: In this dialog box you are defining a location of the origin of a new coordinate system and its rotation with respect to the global coordinate system. The origin point of the template will be inserted at the origin of this newly defined coordinate system.

- In this dialog box:
 - In the Translations area type **20** in the Z edit box.
 - Click the **OK** button twice to exit all dialog boxes.

11. Press the F7 key on the keyboard to toggle the grid lines off.