

## Exercise 9-5

In this exercise, you will refine a mesh to see how the number of subdivisions is increased. You will also see how the smoothness level is reset if the entire model is refined.

1. Open the drawing EX09\_05.dwg available on the companion website.
2. Select the object and display the **Properties** palette. Notice how the Smoothness property in the **Geometry** category is none; this is level 0. Also, in the **Mesh** category, notice that the Number of faces property is 36.
3. Use the **MESHSMOOTHMORE** command to increase the smoothness level to 1.
4. Enter the **MESHREFINE** command and select the mesh. Notice how the number of faces quadruple. The mesh smoothness level resets to 0, but the faces increase to 144.
5. Use the **MESHSMOOTHMORE** command again to set the smoothness level to 1.
6. Enter the **MESHREFINE** command and select the mesh. Make note of the smoothness level and the face total.
7. Could you continue with this process again? Yes, but the mesh would be so dense (over 2300 faces) that it would become difficult to edit the mesh faces.
8. Save the drawing as EX9-5.