SOLID MODELING TOOLS

Review of Solid Modeling Tools

Many of the tools you need to work in 3D are accessible from the ribbon tabs in the 3D Modeling workspace, such as Home, Render, View, and Output (see Figures 1 – 4 below).

- To create 3D solid objects, you can build shapes from the solid primitives, or you can extrude shapes from 2D objects.
- To build solids from the solid primitives, select shapes from the Modeling ribbon panel on the Home tab, or from the Modeling toolbar. Invoke the 3DMOVE and 3DROTATE commands to orient the pieces.
- To extrude solids from 2D objects, first make sure the shape is either a closed polyline or a region, and then invoke the EXTRUDE command in the Modeling ribbon panel. To close a shape, you can:
  - Invoke the PEDIT command to create a closed polyline from line segments; or
  - Invoke the REGION command to create a region from one or more objects that form a closed shape.
- Create complex shapes from multiple simpler shapes with tools from the Solid Editing ribbon panel.
  - Invoke the UNION command to join pieces together.
  - Invoke the SUBTRACT command to remove pieces from a part.
  - Invoke the INTERSECT command to retain shapes where parts overlap.