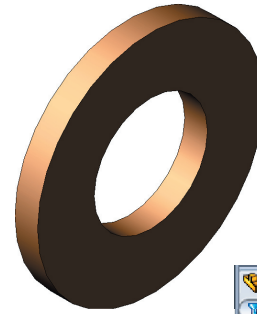



F1 Car Washer



A. Washer.

Step 1. Click File Menu > New, click **Part Metric** and OK.

Step 2. Click **Right** (plane) in the Feature Manager and click **Sketch**  from the Content toolbar, **Fig. 1**.

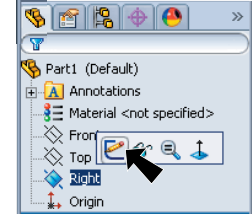


Fig. 1

Step 3. Click **Circle**  (S) on the Sketch toolbar.

Step 4. Draw two circles starting at the Origin , **Fig. 2**.

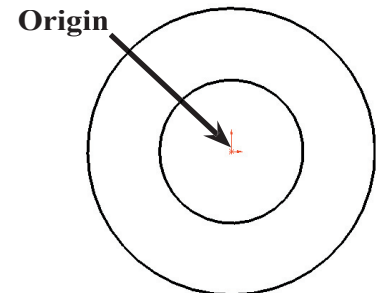


Fig. 2

Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Dimension the circles as shown in **Fig. 3**.

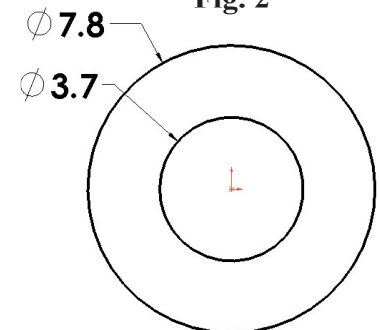
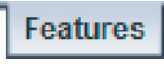


Fig. 3

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

Step 9. In the Property Manager, under **Direction 1** set:

End Condition to **Mid Plane**

Depth  D1 to **.8**

and click OK , **Fig. 4** and **Fig. 5**.

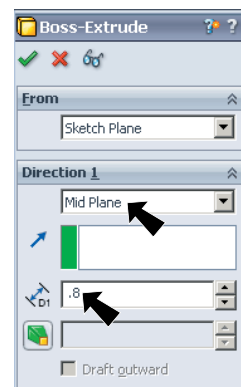


Fig. 4

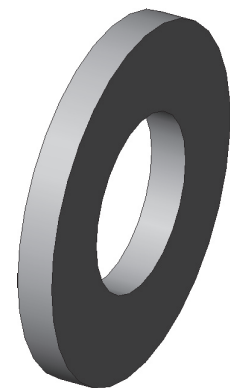


Fig. 5


B. Save as "WASHER".

Step 1. Click File Menu > Save As.

Step 2. Key-in **WASHER** for the filename and press ENTER.

C. Mate Reference.

Step 1. Click the **inside cylindrical face** to select it, **Fig. 6**.

Step 2. Click **Reference Geometry**  on the Features toolbar and **Mate Reference** from the menu.

Step 3. In the Mate Reference Property Manager click OK , **Fig. 7**.

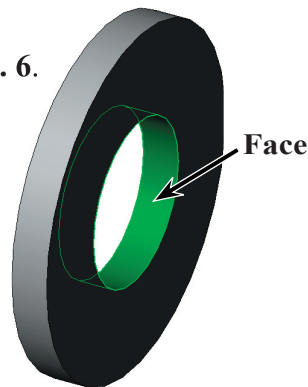


Fig. 6

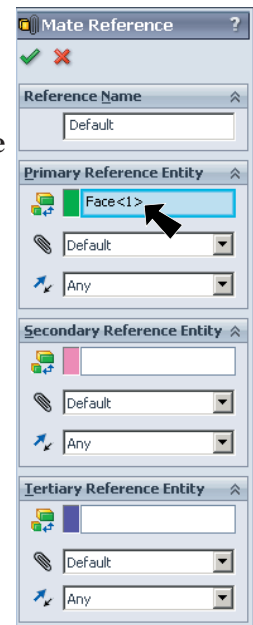


Fig. 7

D. Material Brass.

Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**.

Step 2. Expand **Copper Alloys** in the material tree and select **Brass**. Click **Apply** and **Close**.

Step 3. Save. Use **Ctrl-S**.



Fig. 8