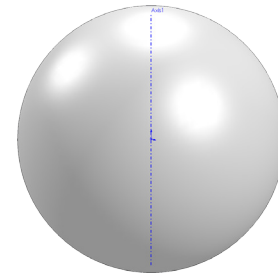




Bottle Rocket Ping Pong Ball



A. Half Circle Sketch.

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

Step 2. Click **Front Plane**  in the Feature Manager and click **Sketch**  on the Context toolbar, **Fig. 1**.

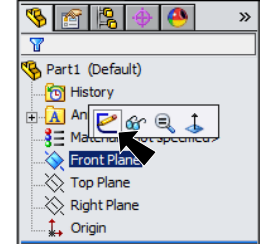


Fig. 1

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

Step 4. Draw a circle starting at the Origin , **Fig. 2**.

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

Step 6. Dimension circle **diameter 38**, **Fig. 2**.

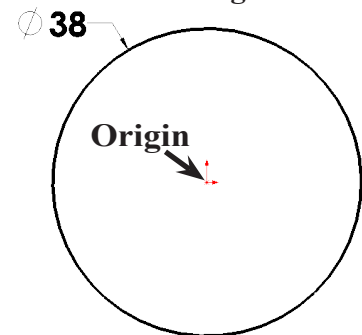



Fig. 2

Step 7. Click **Line**  (L) on the Sketch toolbar.

Step 8. Draw a vertical Line down thru the circle, **Fig. 3**. Draw center-line to circle quadrant points .

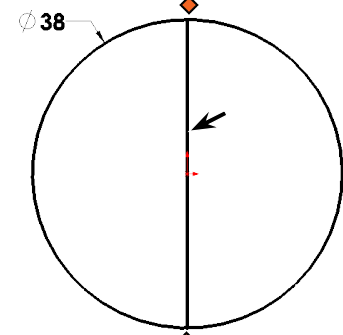


Fig. 3

Step 9. Click **Trim Entities**  on the Sketch toolbar.

Step 10. In the Trim Property Manger select **Power Trim** , **Fig. 4**.

Trim away **arc right of vertical line**, **Fig. 5**. Drag across the arc to trim. Results shown in **Fig. 6**.

Click OK  when done.

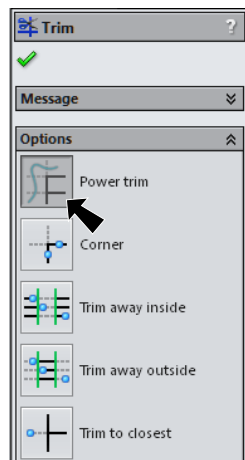


Fig. 4

Drag across

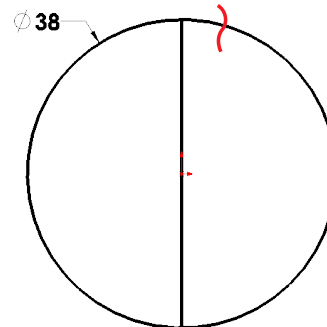


Fig. 5

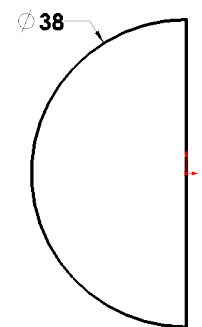


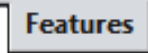
Fig. 6

B. Save as "BALL".


Step 1. Click File Menu > Save As.

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

C. Revolved Boss/Base.

Step 1. Click **Features**  on the Command Manager toolbar.

Step 2. Click **Revolved Boss/Base**  on the Features toolbar.

Step 3. In the Revolve Property Manger:
for the Axles of Revolution
click **vertical line of sketch**, **Fig. 8**
click OK .

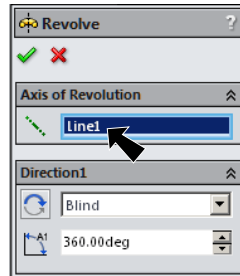


Fig. 7

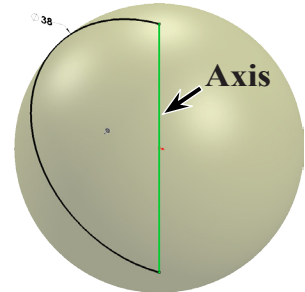


Fig. 8

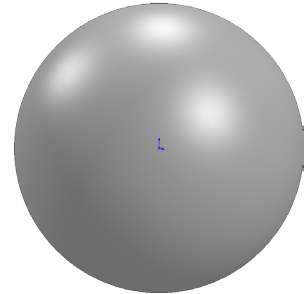


Fig. 9

D. Create Axis.

Step 1. **Ctrl click** **Front Plane**  and **Right Plane**  in the Feature Manager and to select both, **Fig. 10**.

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

Step 3. In the Axis Property Manager click OK  and Cancel , **Fig. 11**.

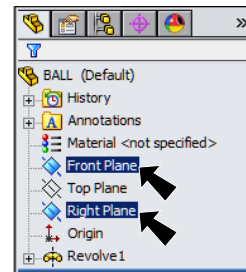


Fig. 10

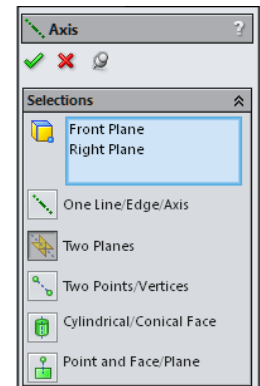


Fig. 11

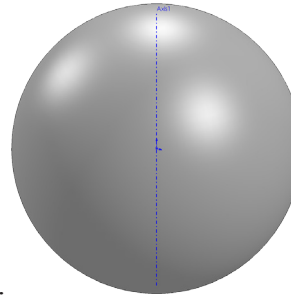


Fig. 12

E. Material Plastic CA.

Step 1. **Right click** **Material**  in the Feature Manager and click **Edit Material**, **Fig. 13**.

Step 2. Expand **Plastics** in the material tree and click **CA**. Click **Apply** and **Close**.

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

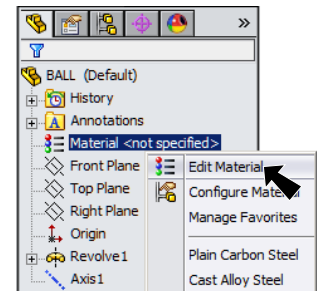

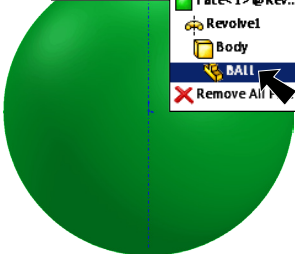


Fig. 13

F. Appearance.

Step 1. Click the part to select the part, click **Appearance Callout** on the Context toolbar and click **BALL**  on  Fig. 14.

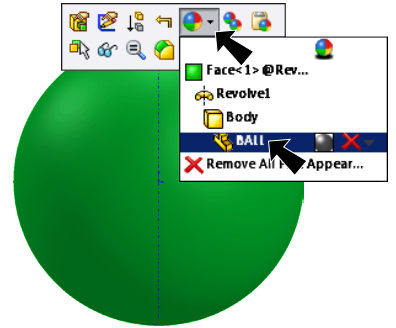



Fig. 14

Step 2. In the Appearances Property Manager under Color:
click **White** swatch, Fig. 15 and Fig. 16
click OK .

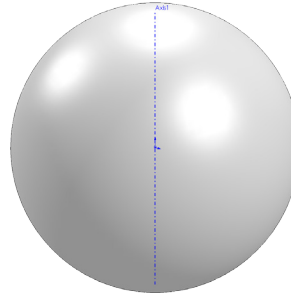


Fig. 16

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

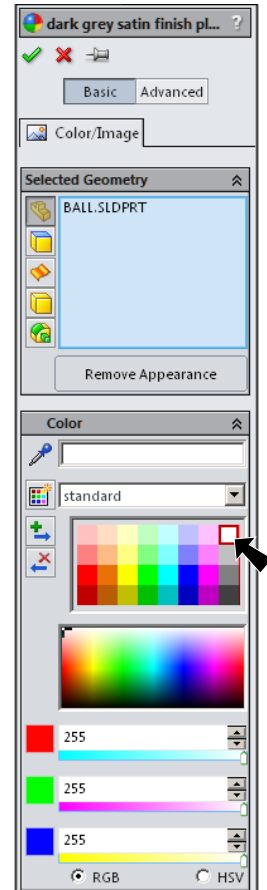


Fig. 15