



A. Extrude.

- Step 1. Click File Menu > New, click **Part Metric** and OK.
- Step 2. Click **Right Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 1**.

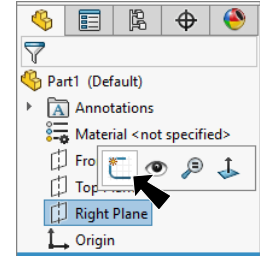


Fig. 1

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

- Step 4. Sketch circle starting at the Origin , **Fig. 2**.

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

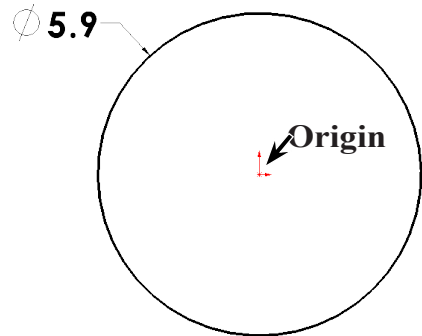





Fig. 2

- Step 6. Dimension **diameter 5.9**, **Fig. 2**.

- 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 set:
under Direction 1, **Fig. 3**
Depth  **24.5**
click OK .

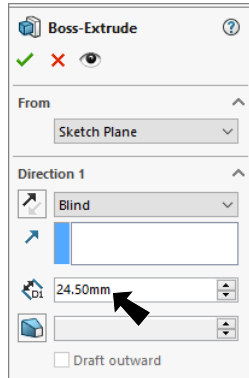


Fig. 3

- Step 10. Click **Zoom to Fit**  (F) on the View toolbar.

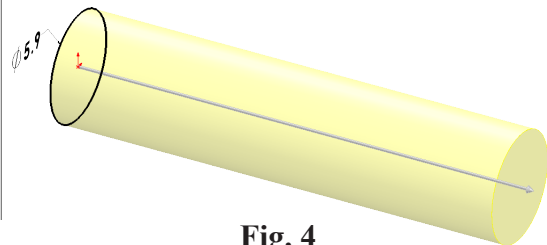
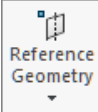



Fig. 4

B. Save as "PINION".

- Step 1. Click File Menu > Save As.
- Step 2. Key-in **PINION** for the filename and press ENTER.

C. Mate References.

Step 1. Click **Reference Geometry**  on the Features toolbar and **Mate Reference** from the menu.

Step 2. In the Mate Reference Manager:
 under Primary Reference Entity, **Fig. 5**
 click **cylindrical face**, **Fig. 6**
 click OK .

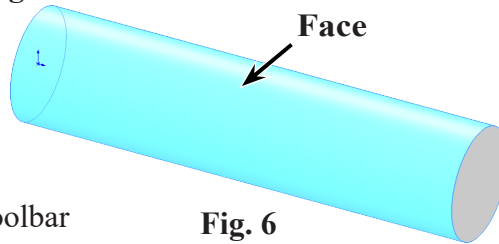


Fig. 6

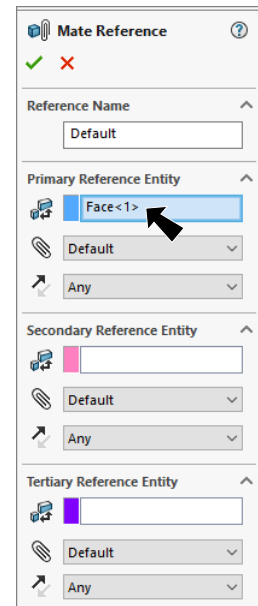




Fig. 5

D. Appearance.

Step 1. Click part, click **Appearance**

Callout  on the context toolbar
 and click **PINION** , **Fig. 7**.

Step 2. In the Appearances Task pane, expand **Plastic**,
 click **High Gloss** and in the lower pane select
white high gloss plastic, **Fig. 8**.

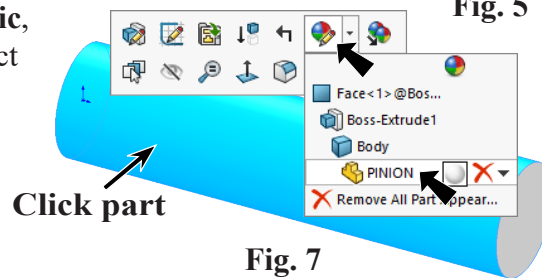


Fig. 7

Step 3. In the Appearances Property Manager set:
 under Color, **Fig. 9**

set **RGB values**

R 188

G 173

B 217

click OK .

Step 4. Save  (**Ctrl-S**).

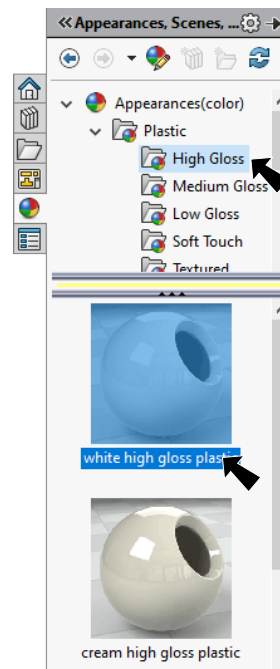


Fig. 9

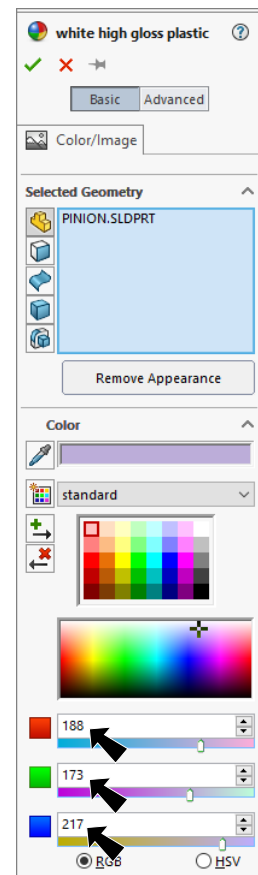


Fig. 9

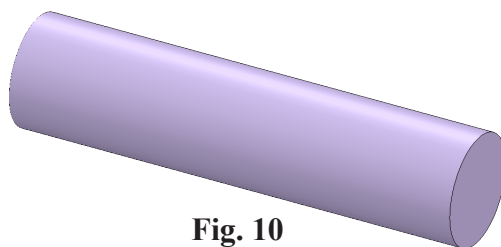


Fig. 10