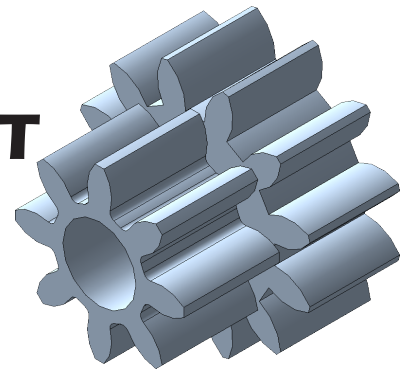


Wind Up Car

Gear Pinion 12-8T



A. Open Gear 12T and Save As.

Step 1. Open GEAR 12T part.

B. Save as "GEAR PINION 12-8T".

Step 1. Click File Menu > Save As.

Step 2. Key-in GEAR PINION 12-8T for the filename and press ENTER, Fig. 1.

C. Delete Boss-Extrude 1.

Step 1. Delete Cut-Extrude1. To delete, in the Feature Manager, click to select and press Delete key (keep Sketch1) or right click, Fig. 2.

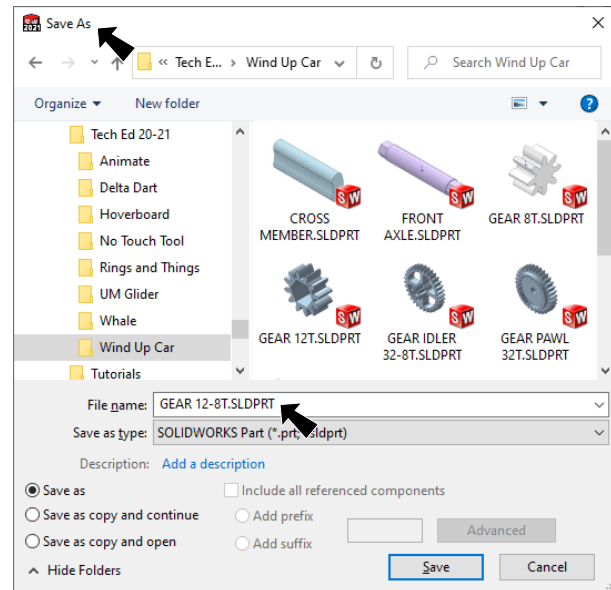


Fig. 1

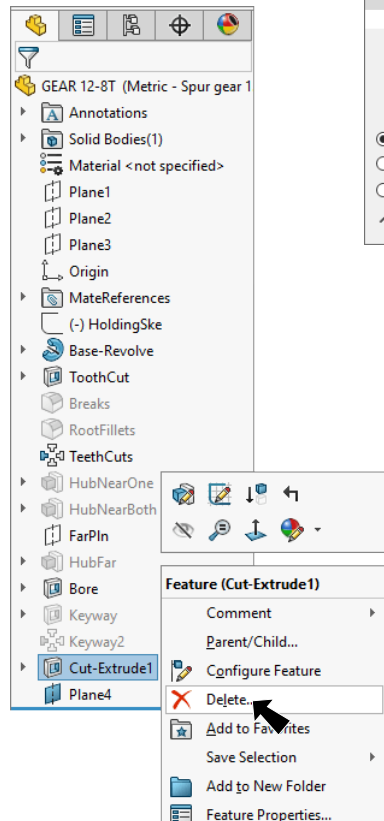


Fig. 2

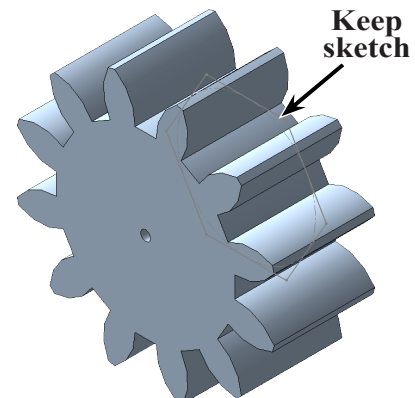




Fig. 3

D. Insert Part Gear 8T.

Step 1. Click Insert Menu > Part.

Step 2. In the Open dialog box:
click **Browse**
select your **GEAR 8T** part
click **Open**.

Step 3. In the Insert Part Property Manager set:
under Locate Part, **Fig. 4**
check **Locate part with Move/Copy feature** **Fig. 5**
click OK .

Step 4. In the Locate Part Property Manager:
under **Translate**, **Fig. 6**
X ΔX 8
click OK .

Step 5. Save  (Ctrl-S).

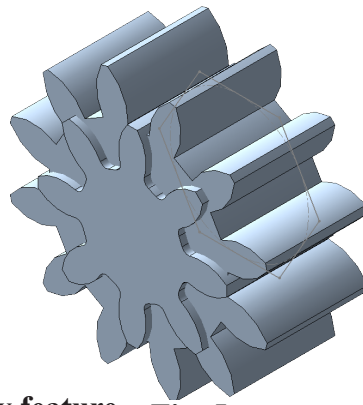


Fig. 5

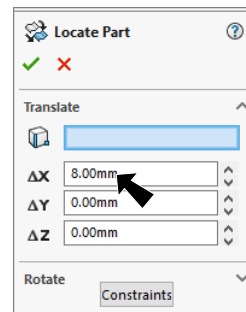


Fig. 6

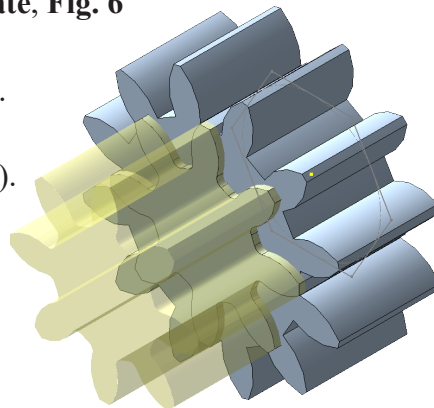


Fig. 7

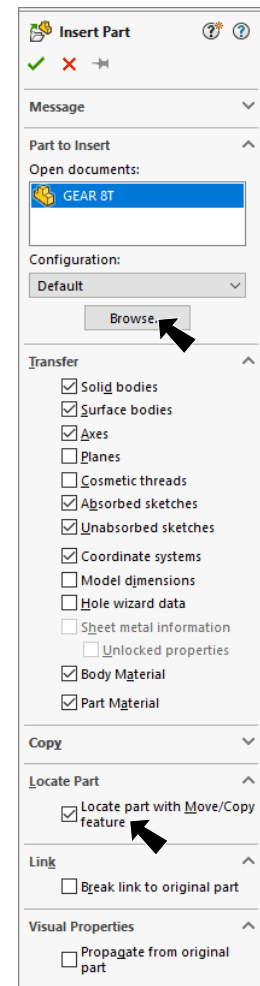



Fig. 4

E. Combine Bodies.

Step 1. Click Insert Menu > Features > Combine.

Step 2. In the Combine Property Manager:
under Operation Type, **Fig. 8**
select **Add**
click **both bodies**, **Fig. 9**
click OK .

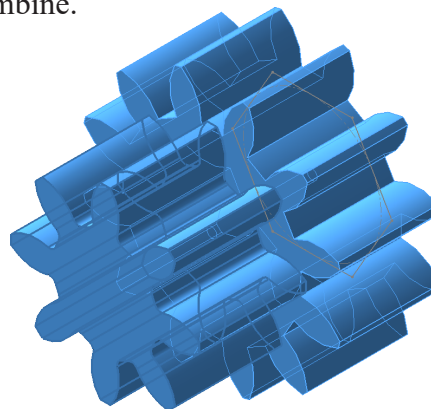


Fig. 9

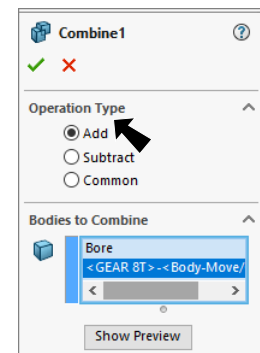


Fig. 8

F. Edit Axle Hole.

Step 1. Click **Sketch1** in graphics area and click **Edit Sketch**



on the context toolbar, **Fig. 10**.

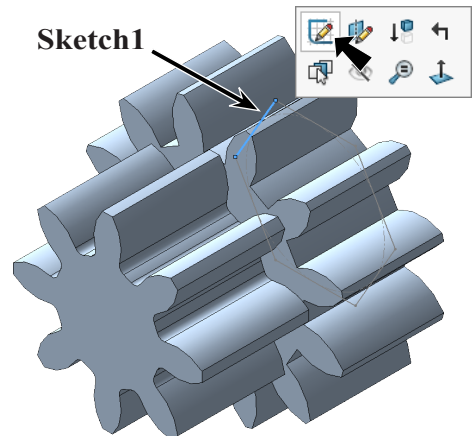


Fig. 10

Step 2. **Delete the polygon.** Use **Ctrl-A** and delete key, **Fig. 11**.

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

Step 4. Sketch **circle** at the **Origin** , **Fig. 12**.

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

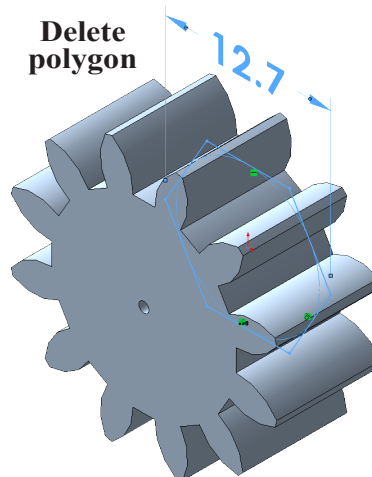


Fig. 11

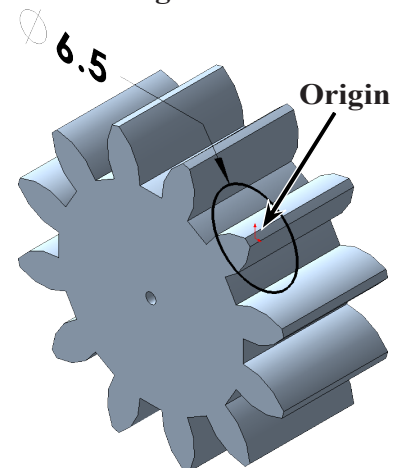


Fig. 12

Step 6. Dimension **diameter 6.5**, **Fig. 13**.

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

Step 8. Click **Extruded Cut** on the Features toolbar.

Step 9. In the Cut-Extrude Property Manager set:
 under **Direction 1**, **Fig. 14**
 End Condition **Through All**
Reverse Direction
 click **OK** .

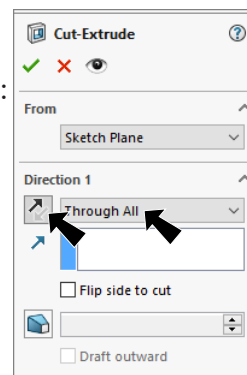


Fig. 13

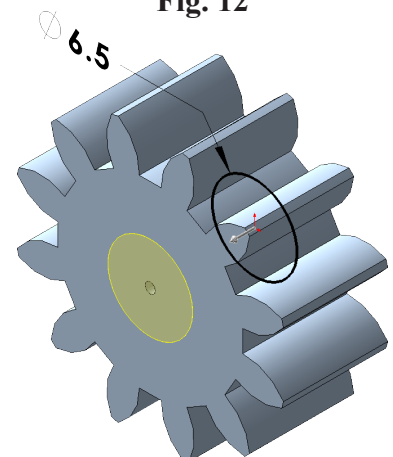


Fig. 14

Step 10. Save (**Ctrl-S**).

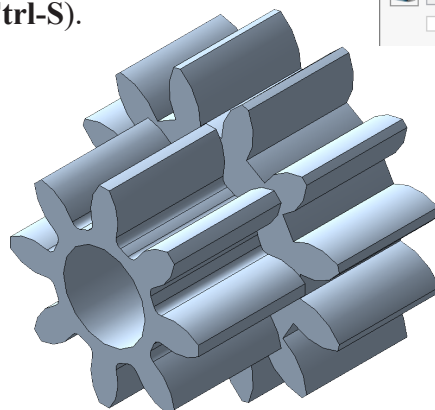


Fig. 15

G. Edit Mate Reference.

Step 1. Expand **MateReferences** folder in the Feature Manager, right click **MateReference** and click **Edit Definition** from menu, **Fig. 16**.

Step 2. In the Mate Reference Manager:
under Primary Reference Entity, **Fig. 17**

click in Entity box and
click a **cylindrical face**, **Fig. 18**

(You might have to click in box and select face twice)

click OK .

Step 3. Save (Ctrl-S).

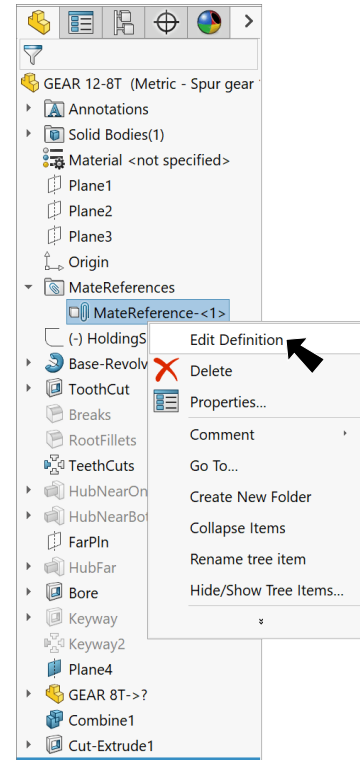


Fig. 16

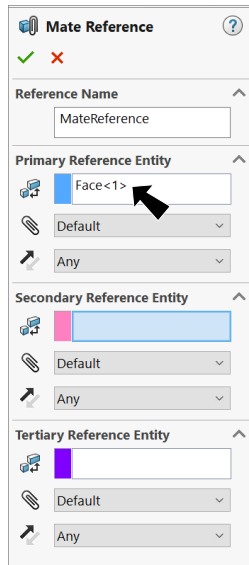


Fig. 17

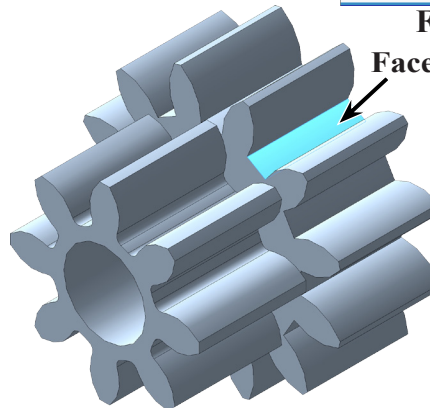


Fig. 18