

**Exercise 42:
Changes**

Make changes to the part created in the previous lesson.

This exercise uses the following skills:

- *Deletions* on page 307.
- *Reorder* on page 308.
- *Copying Fillets* on page 321.

Procedure

Open an existing part.

1 Open the part Changes.

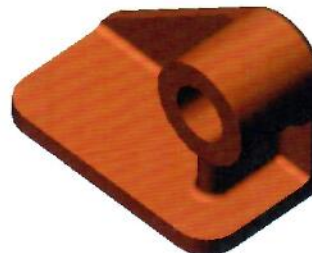
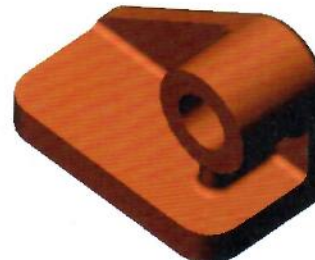
Several changes and additions will be made to the model.

**2 Delete.**

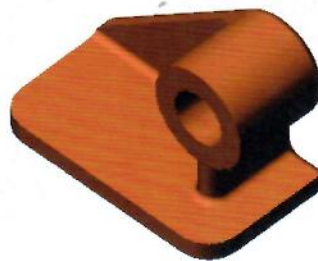
Delete the mounting holes, cutout and shell (Cut-Extrude1, Wall_Thickness and Cut-Extrude2) and absorbed features from the model.

**3 Same thickness.**

Set the thicknesses of the Base_Plate and Vertical_Plate to the same value, 12mm.



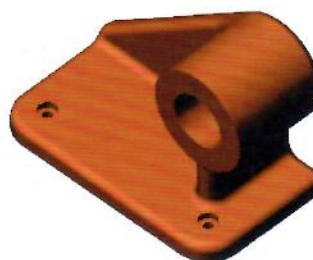
- 4 **Cut.**
Remove the portion of the
Vert_Plate on the right side of the
Circular_Boss and Rib_Under.
Edit, Rollback and **Reorder** features
where necessary to maintain the
filleting.



- 5 **Fillet.**
Add another fillet the same radius as
the Circ_Fillet.



- 6 **Counterbored holes.**
Add two counterbored holes of the
following size:
ANSI Metric
M6 Hex Cap Screw
Through All
Reorder features where necessary to
avoid undercuts.



- 7 **Save and close the part.**

**Exercise 43:
Editing**

Edit this part using the information and dimensions provided. Use relations and up to surface end conditions to maintain the design intent.



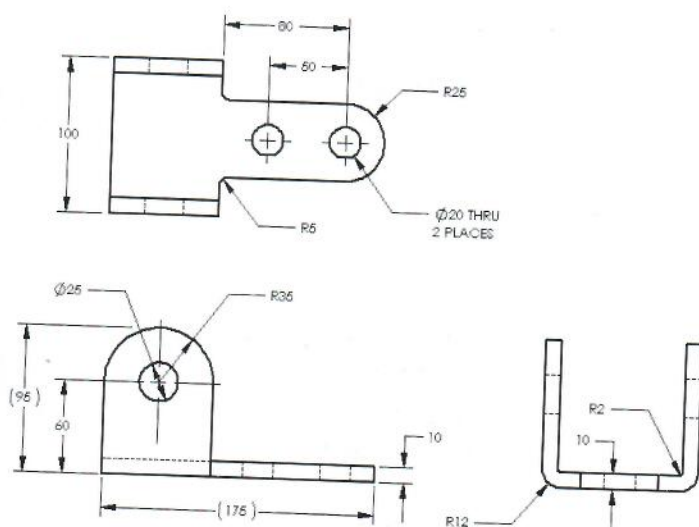
This lab reinforces the following skills:

- *Reorder* on page 308.

Procedure

Open the existing part **EDITING**, and make several edits:

Change the existing part, editing and adding geometry and relations, to match the version shown below.

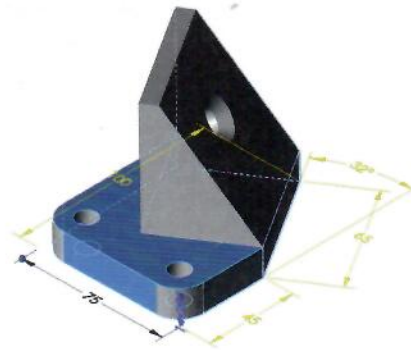


Exercise 44: SketchXpert

Use the SketchXpert to repair the part.

This lab reinforces the following skills:

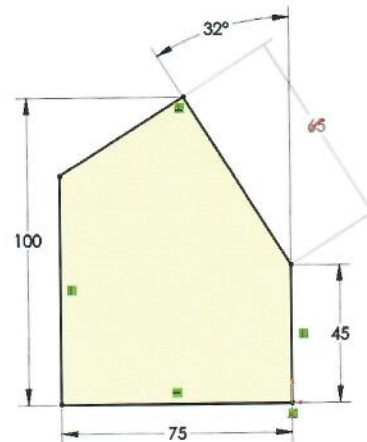
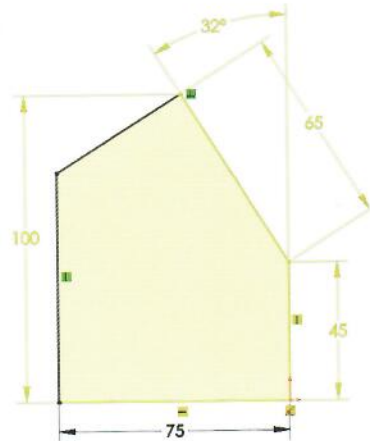
- *SketchXpert* on page 310.



Procedure

Open an existing part and named *SketchXpert*. Repair the sketches as shown in the following steps.

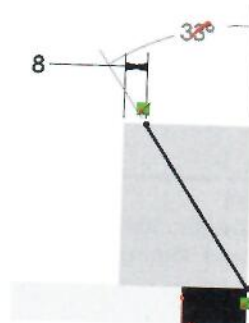
- 1 **Edit Sketch1.**
Expand the **Base-Extrude** feature and edit the sketch **Sketch1**. Click **View Normal To** to orient the sketch as shown.
- 2 **Solution.**
Start the **SketchXpert** and click **Diagnose**. Choose the solution shown at right.



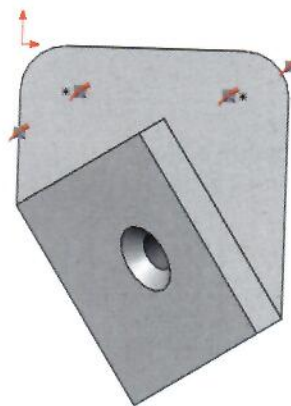
3 Other sketches.

Complete repairs to the remaining two sketches using SketchXpert.

Edit Sketch3 from the Cut-Extrude1 feature. Select the solution shown.



Edit Sketch9 from the $\varnothing 10.0$ (10) Diameter Hole1 feature. Select the solution shown to delete Coincident2 and Coincident3.

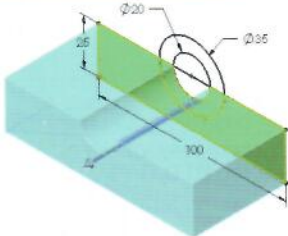
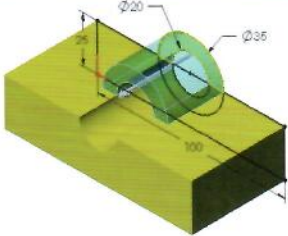
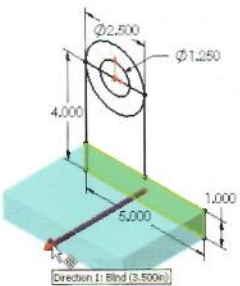
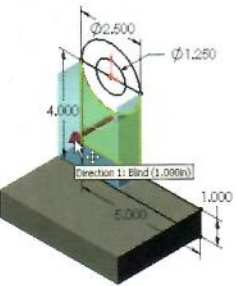
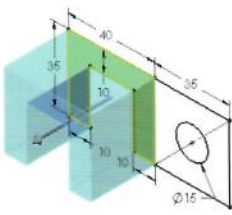
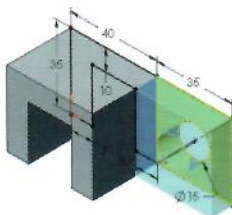
4 Save and close the part.

Exercise 45: Contour Sketches

Edit these parts using the information provided. Extrude profiles to create the geometry.

This lab reinforces the following skills:

- *Sketch Contours* on page 318.
- *Shared Sketches* on page 320.

#1 Depth: 50mm and 30mm		
#2 Depth: 3.5", 1" and 2.5"		
#3 Depth: 30mm and 10mm		
#4 Depth: 1.5" and 0.5"	