Lesson 7 specific:

Page 7-2.
- Create the new part using the Start template.
  - Remember Top in the text is referring to the Horizontal plane, Front to Frontal plane and Right to Profile plane.

Page 7-3.
- After creating new symbolic names, use Info – Switch Dimensions to set your dimensional representation back to numeric.

Page 7-4.
- After creating Pattern #1, change the background to white and capture and print an image similar to Figure 4. Make sure the model tree is expanded as shown and visible in your screen capture.

Page 7-5.
- After creating Pattern #2, change the background to white and capture and print an image similar to Figure 6. Make sure the model tree is expanded as shown and visible in your screen capture.
Page 7-5.
- After creating Pattern #3, change the background to white and capture and print an image similar to Figure 8. Make sure the model tree is expanded as shown and visible in your screen capture.

Page 7-6.
- After creating Pattern #4, change the background to white and capture and print an image similar to Figure 10. Make sure the model tree is expanded as shown and visible in your screen capture.

Page 7-6.
- After creating Pattern #5, change the background to white and capture and print an image similar to Figure 12. Make sure the model tree is expanded as shown and visible in your screen capture.
Page 7-7.
- After creating Pattern #6, change the background to white and capture and print an image similar to Figure 14. Make sure the model tree is expanded as shown and visible in your screen capture.

![Image of Pattern #6](image.png)

Page 7-7.
- The new part called flange can be started with the Start template. This has units set to inches.

Page 7-11.
- After creating the modified hole pattern (16 holes, deselect Include Thread Surface [Hole 1 – Edit Definition..]), change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is expanded as shown and visible in your screen capture. Note that this is a hidden line representation.

![Image of Modified Hole Pattern](image.png)

Page 7-11 & 7-12.
- Skip the section labeled A Pattern of Grouped Features.

Page 7-13.
- When starting the Turbo part, use Edit – Setup – Units to define your units (mnNs).
Page 7-13, Figure 27.
- This is how your sketch will actually appear in sketcher (with constraints shown):
- When entering SQRT(2)-1 do not type the brackets [ ].

Page 7-14.
- If you sketch the shape in Figure 26 first, when you close sketcher the following dialog box will appear “Sketch is incomplete for reasons listed in message area. Exit sketcher?” The message in the prompt line will read “Section must be closed for this feature.” Cancel the sketch and select the Thicken button BEFORE you select Placement – Define.

Page 7-16.
- Use the following dimensions for the cut.
Page 7-16.
After creating the turbo, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is expanded as shown and visible in your screen capture.

Pages 7-16 – 7-18.
Radial Pattern using Make Datum as Reference Plane – Skip this section.

Page 7-19.
Pay particular attention to the instructions on lining up faces with planes when creating the rectangular solid for the featcopy part. Also note that the sketch plane is a “make datum” and will be grouped inside the created feature.

Page 7-20.
After creating the featcopy part, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is expanded as shown and visible in your screen capture. Note that this is a no hidden line representation and the primary datums are displayed.
Page 7-20.

A translated Copy section. Instead of deleting the vertical protrusions, suppress them (RMC - Suppress), but show them in the model tree by selecting Settings – Tree Filter – Check Suppressed Objects – Apply – Ok.

Page 7-21.

After creating the translated copy part, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is expanded as shown and visible in your screen capture. Note that this is a no hidden line representation and the primary datums are displayed.

Page 7-21.

Create the new part using the Start template.

The first extrusion on the sidepipes model is centered on the default datums.

Page 7-23.

After creating the sidepipes part, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree in expanded as shown and visible in your screen capture. Note that this is a hidden line representation and the primary datums are displayed.
After creating the mirrored copy part, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is expanded as shown and visible in your screen capture. Note that this is a no hidden line representation and the primary datums are displayed.

There are no additional exercises to do at the end of this chapter.

Important Note: All screen captures should be printed three per page. Fill the entire sheet!

Make sure your name and section number is typed at the top of the first page. Print, staple pages in order and submit to your instructor for grading.