Lesson 7 specific:
Remember to include your lastname at the beginning of the part file name.

Page 7-3.
- Create the new part using the Start template. You have to have access set to the V: (pro_e) drive before starting Pro/ENGINEER to be able to use this 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 toggle your dimensional representation back to numeric.

Page 7-5.
- After creating Pattern #1, before starting Pattern #2, 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 7-6.
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 7-7.
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.

Page 7-8.

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

Page 7-9

The dimensions of the counter bore are not specified. Use a diameter of 1.25 and a depth of .25.

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.

Page 7-12 & 7-13.

Skip the section labeled A Pattern of Grouped Features.

Page 7-14.

When starting the Turbo part, use Edit – Setup – Units to define your units (mnNs).
Page 7-14, Figure 24.

- This is how your sketch will actually appear in sketcher (with constraints shown):
- When entering \[\sqrt{2} - 1\] do not type the brackets [ ].

Page 7-15.

- 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.
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 7-17 – 7-19.

Radial Pattern using Make Datum as Reference Plane – Skip this section.

Page 7-20.

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 7-23.

Up to Surface should read To Selected

After creating the featcopy part and modifying the independent dimensions, change the background white and capture and print an image similar to what is shown to the right. Ensure the model tree is shown and in your screen capture. Note that a shaded representation and the datums planes, and centerlines are not displayed.
The last paragraph states that the sketch should be placed on the “right” surface of the base feature. See the figure below to know what that surface actually is in the default view.

Page 7-25

- You will get a message concerning Sketch Editing when selecting a Sketch surface when opening the Placement slide up panel. Select Yes to continue Editing this sketch.
- After creating this feature and changing the width to 10 and the height to 60, change the background to white and capture and print an image similar to what is shown below. Make sure the model tree is visible.

Page 7-26 – 7-30

- Making Dimensions Independent, Paste Special #2, Paste Special Example #3, Paste Special Example #4, Paste Special Example #5. Skip these sections unless you are interested in how to make dimensions independent, how to break, restore and remove dependence and how to use advanced reference configurations.
Picking up with Paste Special Example #6, after creating the translated copy part (center of page 7-31), 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.

Create the new part (featcopy4) using the Start template.

The first extrusion on the featcopy4 model is centered on the default datums.

The Thorough All option for the Straight, Coaxial Hole is listed when select the Shape button. Dragging the mouse over the Drill To options on the dashboard displays different text for the same symbols.
After creating the featcopy5 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.

Pages 7-33 & 7-34.

Explore the Model and look at Design Considerations if you have an interest.

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. Don’t drop box any of these files. Just make sure they are available on the P: drive for your instructors review if necessary.