Geometric Constraints:

1. Create the following 2D profile on the front plane and then add your name and seat number below the shape.
   a. Only use geometric constraints – no dimensioning allowed.
   b. The following constraints will be useful
      i. Equal
      ii. Parallel
      iii. Horizontal
      iv. Tangent
      v. etc.
   c. Use the trim function to clean up any unnecessary lines
   d. Select items and try to move them. Observe how the shape reacts and that will help you know which constraints are still needed.

2. Adjust the view of the profile to fill the page and print off in Sketching Mode so the constraint icons are visible.
   a. The icons will be difficult to read but just having the boxes will show that you have tried to add constraints to necessary places.
Dimensional Constraints:

1. Model the part shown in the figure below. This drawing comes from Problem 6.4(r) of the text.
   a. Plan ahead and start with a good base extrusion.
   b. Always establish the correct UNITS prior to applying Dimensional Constraints.
   c. Use tangential constraints to create the edges that come off the rounded ends.
   d. The liberal use of equal and symmetrical geometric constraints will greatly simplify the creation of Fully Defined sketches. All sketches should be Fully Defined except for the sketch with your name and seat.

2. Adjust the viewing of the object to fill the page, place the part in the Isometric orientation and print in landscape mode with your name and your seat number on the front of the part drawing.

Note that you will not have any dimensions displayed on your finished part with sketches FULLY DEFINED.

Dimensioned Isometric

Dimensioned Orthographic