ENGR 1182 | SolidWorks 4: Design Intent
SW04 - OUT of CLASS Assignment

Fully Defined:
- Create the following object (Problem 6.4(aa) from the text) using fully defined sketches.
- Units are inches and to create this object try to use only two sketches (front plane, and top plane).
- Put your name below the object and print off.
Design Analysis:

- Model the part shown using **ONE** fully defined sketch (front plane, look at the cutaway for the profile) and the revolve tool.
- Alter the profile using the dimensions show in the table below and analyze the part using the mass properties toolbox in SolidWorks. Record in the table below.
- Attach this sheet with your name to a print off of the part in its original size with your name below.

### Pipe Fitting Sizes

<table>
<thead>
<tr>
<th></th>
<th>Big Diameter (mm)</th>
<th>Small Diameter (mm)</th>
<th>Length L1 (mm)</th>
<th>Length L2 (mm)</th>
<th>Volume (mm^3)</th>
<th>Surface Area (mm^3)</th>
<th>Center of Mass (mm) - from origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original</td>
<td>120</td>
<td>56</td>
<td>24</td>
<td>36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long</td>
<td>110</td>
<td>50</td>
<td>35</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide</td>
<td>135</td>
<td>65</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Origin**