|  | I use the native tool "Follow Me" to make flanges. Here I have a circle and a center line to rotate the wheel's profile. I have outlined the profile on the rectangle. |
| :---: | :---: |
|  | Here I have removed the extra lines, leaving the profile of the wheel and the circle for the "Follow Me" tool |
|  | This is the profile after using "Follow Me". <br> 1. Select circle <br> 2. Select follow me tool <br> 3. Select face of wheel profile <br> 4. Double click wheel and make a group or component. Now the wheel will appear to have volume in the "Entry Info" and will be considered a solid. |
|  | Now for the most complicated. <br> 1. On top of the wheel solid and outside the group's raw geometry, make a circle representing the support holes. <br> 1 Make the new smaller circle a group. 2 Pick the new smaller circle, using the rotate tool, make one copy 45 degree from the first hole, than in the measurement box, enter 7x. This will make 7 copies, each 45 degrees, so you will have now eight group holes around the center hole. |
|  | The complicated \#1 <br> 1. Select all eight of the smaller circles. Select copy, press the delete key, to remove the holes, double click on the wheel to open the group, and than select the "paste in place" in the edit menu. <br> Note, the copy and "Paste in Place" in the edit menu is a great native tool to move object inside groups. |

$\left.\left.\left.\left.\left.\begin{array}{l}\text { The complicate \#2 } \\ \text { Now this looks like the image above, } \\ \text { however the circle groups are now on } \\ \text { the raw geometry of the wheel. }\end{array}\right\} \begin{array}{l}\text { 1. Select all eight circles. } \\ \text { 2. Explode all the selected circles. This } \\ \text { will place each circle onto and being } \\ \text { part of the raw geometry of the wheel. } \\ \text { 3. use the push pull tool and push one } \\ \text { circle though the wheel. } \\ \text { 4. Now on the other circles, just double } \\ \text { clicking each circle's face with the } \\ \text { "Push Pull" tool will push the circle to } \\ \text { the same depth. So double clicking } \\ \text { each circle's face will push though } \\ \text { each circle's face making a hole. }\end{array}\right\} \begin{array}{l}\text { The new wheel with center hole and } \\ \text { eight mounting holes. } \\ \text { Why do I make the circles outside the } \\ \text { raw geometry. Because if you try to } \\ \text { make the hole circles on the raw } \\ \text { geometry, it will stick to the geometry } \\ \text { making life miserable. So I make extra } \\ \text { geometry outside the group. Aligning } \\ \text { or making revision until I have what I } \\ \text { want. Than I use copy and paste-in- } \\ \text { place and explode to add the addition } \\ \text { to the raw geometry. }\end{array}\right\} \begin{array}{l}\text { I never use a number of sides that will } \\ \text { give me a decimal point in the number } \\ \text { of segments. Such as 48s will give you } \\ \text { a segment of 7.5 degrees. }\end{array}\right\} \begin{array}{l}\text { Here is an X-ray view of your wheel. } \\ \text { You can see the internal faces. Not } \\ \text { sure how you made this wheel. It is not } \\ \text { a solid. } \\ \text { On another note, I make all round } \\ \text { objects with a number of side giving } \\ \text { me a whole number degrees for each } \\ \text { segment. } \\ \text { 45s for a segment of 8 degrees, 72s for } \\ \text { a segment of 5 degrees, 90s for a } \\ \text { segment of 4 degrees. }\end{array}\right\}$


