This is a side show for those that are caught up. This assignment will show how to add some treads and the flame to our tire and wheel. First the Tire.

Perform the following steps:

For the Tire open the existing Tire part.

1. Click on the top plane in the Feature Manager Design Tree then right click it and choose the glasses icon which will allow the plane to show. In the modeling window click on this plane with the "Crtl" key depressed and move it above the tire by about 8 inches. Press the green checkmark.

2. Choose this new plane for a new sketch and sketch the following using the two construction lines shown (vertical and horizontal from the origin). These are used to aid in construction. Using the vertical line as a boundary draw the sketch shown on one side of the line only. Make the sides parallel by establishing a "parallel" sketch relation in the Properties Manager on the left side of the modeling area. When done with one side of the sketch, use the "Mirror" sketch entity to mirror the completed sketch to the other side.
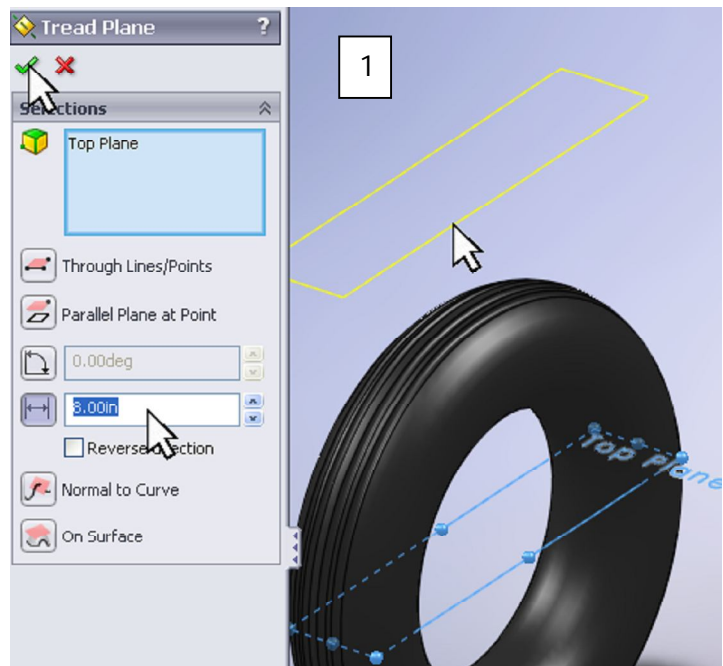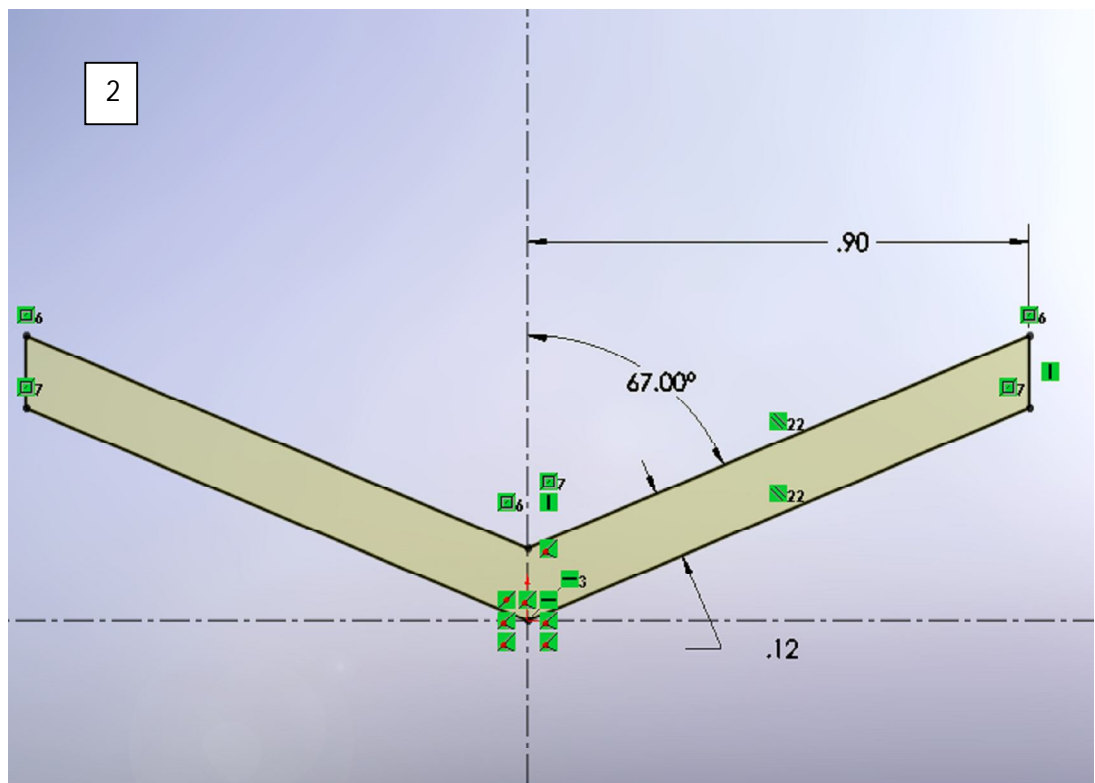
3. Now choose the Extrude Cut feature with the following properties: Offset From Surface option, choose the sketch that you are working on (default), choose the center tire rib for the surface to offset from, then choose a depth of 0.05″. Click the green checkmark.
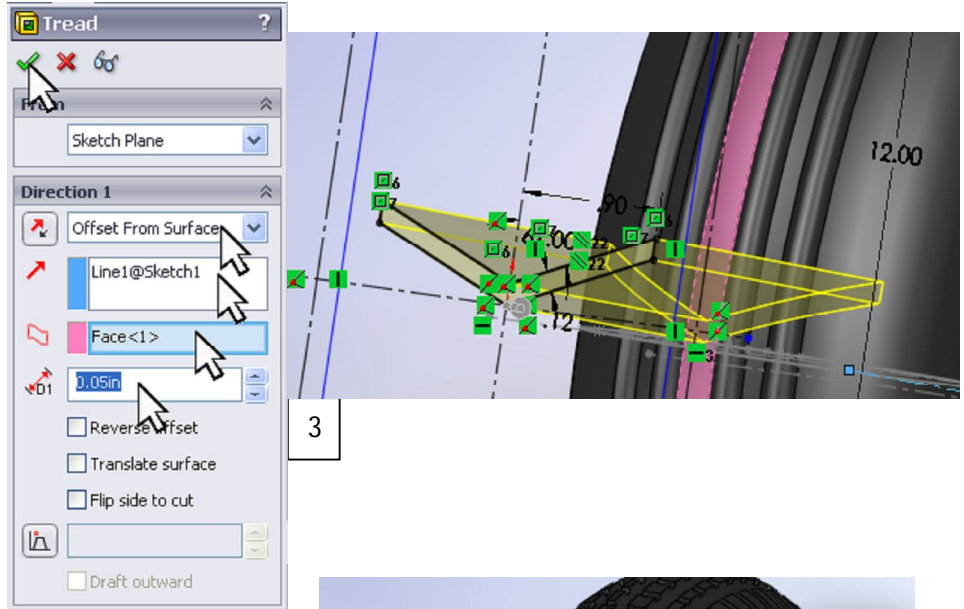
4. Use the "Circular Pattern" feature to pattern the tread cut around the tire. Turn on the "temporary axis" in the "View" pull down menu and choose this as your rotation parameter. Choose "Equal Spacing" and about 80 instances.


Adjust the sketch, instances of the circular pattern and other variables to meet your individual tastes. The tire and treads should look something like the image nearby.

5. Now the Wheel. Open your wheel and click on the right plane. Go to the Sketch toolbar in the Command Manager and choose the "Spline". Start drawing a spline in the area between the top of the wheel and the axle. A Spline works like a regular line with control Nodes along the line to modify its shape. To put these nodes on the Spline click the left mouse button along the way. Make certain that the Spline is closed geometry so that the 3D Extrude Cut feature can be applied. Use the nodes you placed to manipulate the Spline to get the result that you desire.
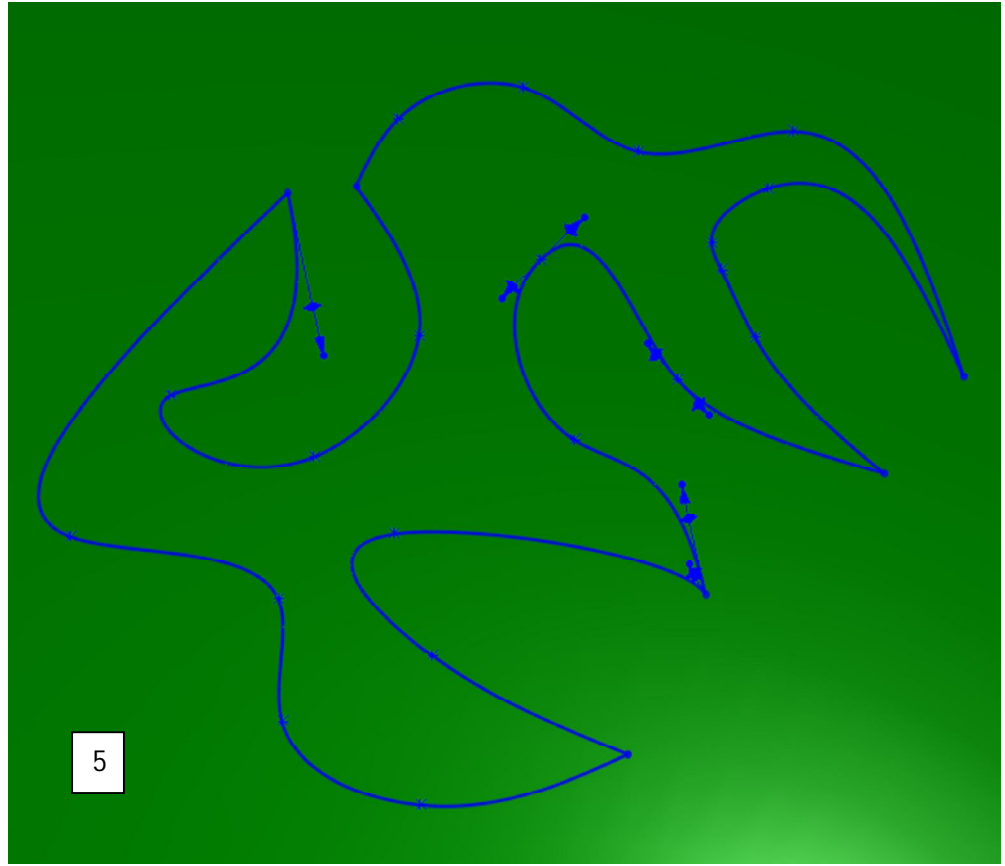
6. Use the "Extrude Cut" Feature and cut this shape in two directions "Through All". Use the circular pattern like you did on the Tire and your wheel should look similar to the image nearby.