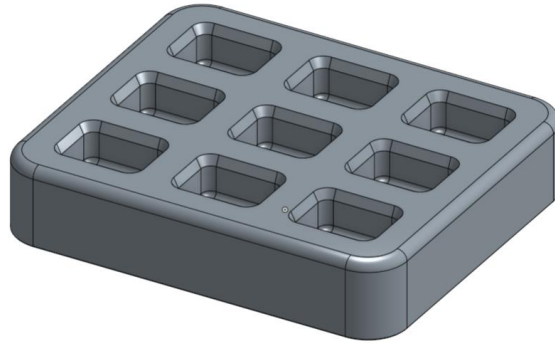


Week 3 Homework:

1. Recreate the Patterned part from the lesson as a sketch pattern:

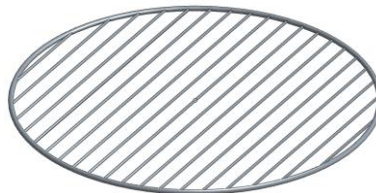


2. Starting with the CAD models located [here](#), complete the following geometry:
 - a. Use both a circular pattern (8 X 360°) and a Linear Pattern (3 X 2") to create the following geometry:

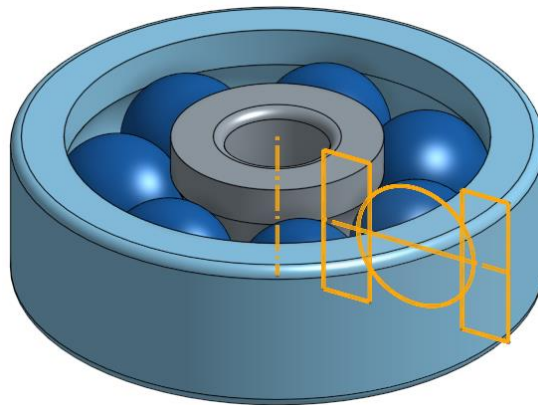


- b. Starting with the two sketches provided, create the following backyard grill grate, with 1" gaps, using the following three methods (extrude them up to the outer ring):
 - i. Sketch pattern the grill grate cross-section
 - ii. Feature pattern the grill grate extrudes (try doing it with a single pattern!)
 - iii. Part pattern the grill grates (use booleans to "trim" the grates using the outer ring)

What are the pros and cons of each method?



- c. Create this multi-part ball bearing design, starting with nothing but the provided sketch, highlighted in orange. Don't forget the 0.1" fillets at the end!



- d. Create the following screwdriver model, given the existing sketches, and using the following workflow:
- Revolve the Driver, Handle, and Grip parts from the initial Profile sketch.
 - Revolve the Bump Profile as a new part
 - Circular Pattern the Bump Profile (6X)
 - Boolean Union the Bump Profiles to the Grip Part
 - Boolean Subtract the Handle from the Grip
 - Sweep remove the Driver tip given the Profile & Path sketches.
 - Circular pattern the Driver tip geometry (4X)

