

Week 9 Assessment:

1. What is draft, and for what manufacturing purpose is it mainly used?

Draft is when you add a small angle (1-3°) to any surface so that it may be properly manufactured using Plastic Injection Molding processes. The draft angle is measured between the the surface and the direction of pull.

2. Why are small radii common in parts that have been designed for plastic injection molding?

Adding small radii to sharp edges allows for the plastic to “flow” better during the molding process, and facilitates easier removal of the part from the tooling after molding.

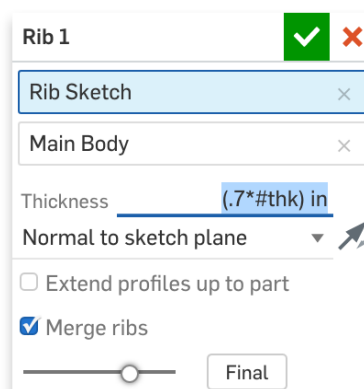
3. What is a “Split” feature?

It is when you cut a single part into multiple parts using a surface or plane.

4. Explain a typical use of a Variable in Onshape.

A Variable is used to establish a design parameter, for example the thickness of a plastic part, that may be referenced throughout the design; in multiple features and parts.

5. Explain what is going on in the “thickness” entry of the dialog box below:



We are defining the thickness of the rib feature as an expression, 0.7 X “thk” inches, where “thk” is a previously defined variable in our model.

