

Exercise 1: 2D Sketches (Week 1)

Contributed by Ryan Olson
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Modeling Exercise 1: 2D Sketches

This is a simple exercise designed to get you used to doing basic operations in SolidWorks and using the 2D sketch tools. These exercises build on the material we will cover in the first class.

- Based on the PDF below, create one SolidWorks part document for each of the exercises, 1.1-1.4.
- In each part document, create a single Sketch on the Top plane.
- Use the 2D sketch tools to draw the appropriate lines, arcs, and circles to replicate those in the original drawings. Use sketch relations to line up points appropriately; for example, use a Midpoint relation to ensure that a point lies exactly in the middle of a line.
- Use the Reference Geometry toggle to switch indicated sketch elements (shown as dotted lines) to reference geometry.
- Use the Smart Dimension tool to insert the necessary dimensions for the sketch to be fully defined.
- The original drawings use implied relations; that is, if something looks like it's midway between two points, assume that it is.
- Don't be too concerned if you can't get everything exactly right. This is the first exercise, and we'll spend all the time necessary to go over it in class.
- Bonus karma if you can tell me what the geometry in Exercise 1.4 represents.

Files

- Exercise 1 (1.1-1.4) (PDF)