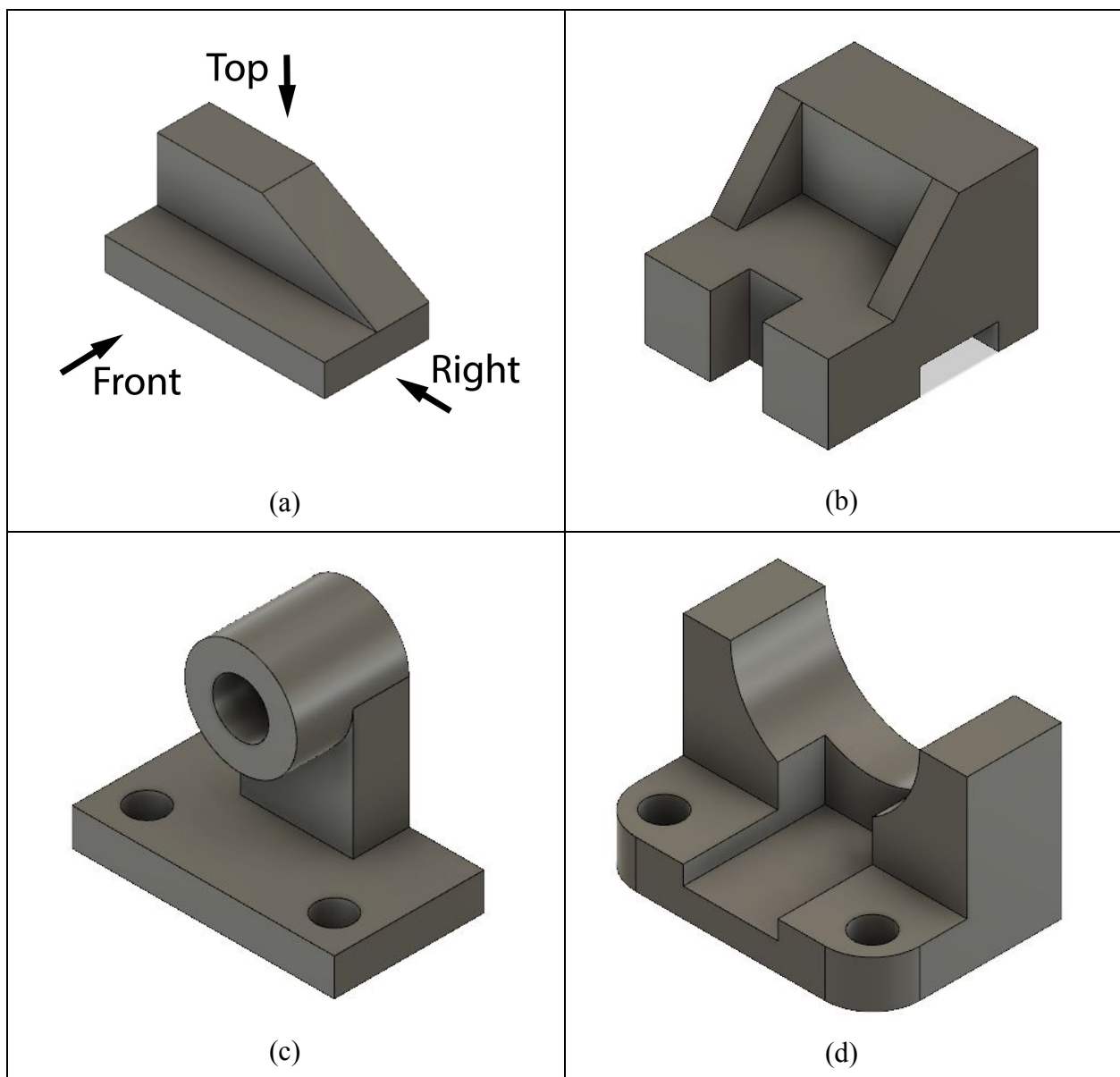


MAE 292 Spring 2020 Homework 2

Due on Thursday April 16, 2020, at 11:59 PM

Problem 1: Spatial Visualization and Three-View Drawing (30 points)

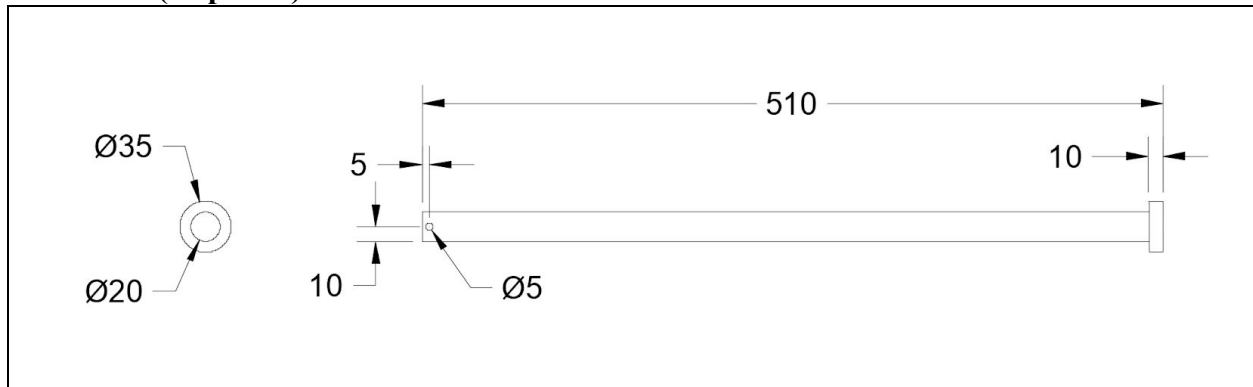
Hand sketching orthographic (front, right, and top side) views is an important skill in spatial visualization. For the four isometric projections below please sketch the front, top, and right side projections of these shapes. This is to be done **BY HAND** on paper. Include hidden features as dashed lines in the sketch. We do not provide any dimensions so you must estimate the relevant dimensions (there is no penalty for scale).



Problem 2: CAD Design in Fusion 360 (45 points)

In the following three problems design in Fusion 360 the part using the dimensions in the drawing. All dimensions are in mm (you can switch to mm by clicking the document settings button in the left side navigator). Turn in a snapshot of the home view and a link to the part online by right clicking on the file and selecting share public link.

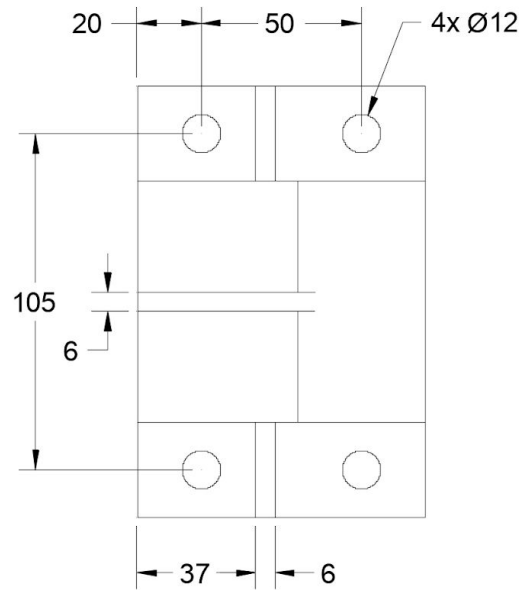
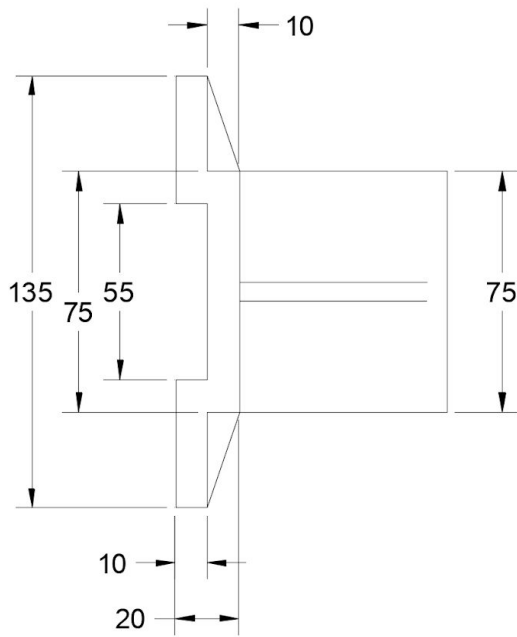
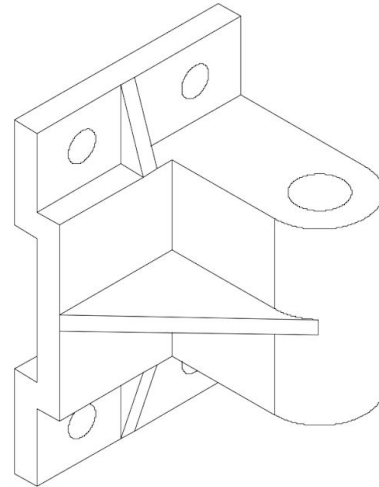
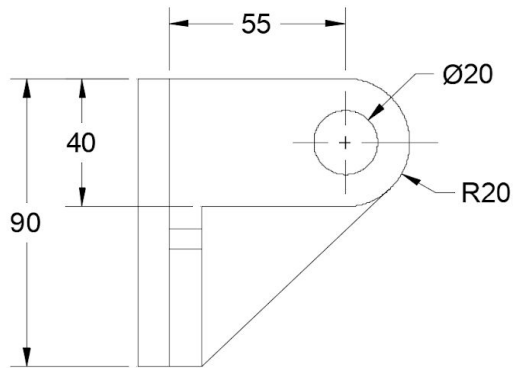
1. Pin (10 points)



2. Cross brace (15 points)



3. Support base (20 points)



Problem 3: Assembly in Fusion 360 (25 points)

Create a new file and add in the three components you just created. Form an assembly of the parts with the following dimensions. The pin should be joined to the support base with a revolute joint, and the cross brace should be joined to the pin with a revolute joint. Turn in a snapshot of the 3D isometric projection as well as a link to the file.

