

EAS 199B: Homework 1

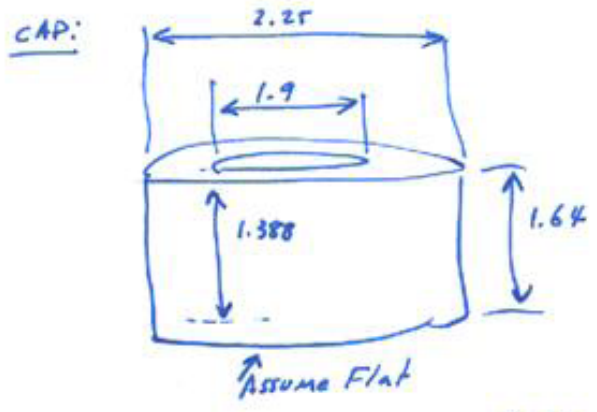
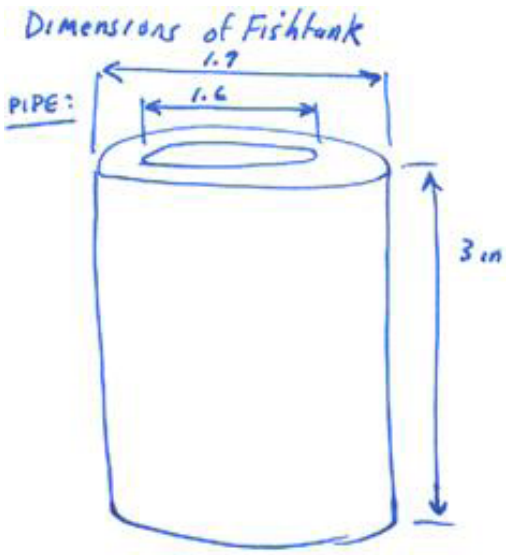
Due 14,15 January 2013

Group Assignment

1. Paint the wooden portion of your fish tank system that was fabricated in class 1. Have fun with your paint scheme . . . the way it looks is up to you. Please use a drop cloth (newspaper, old shirt, a few pieces of notebook paper) to avoid getting paint on anything.

Individual Assignment

2. Make hand sketches and measurements of the PVC tank and the wooden components of the fish tank. Include enough dimensions that you can create accurate solid models of the parts. An example of hand sketches for the PVC tank is shown on the next page.
 - a. Use the hand sketches to create solid models (in Solidworks) of the PVC fish tank parts
 - b. Use the part models to create an assembly of the fish tank. Include at least two views of the fish tank assembly in your solution.
 - c. Use the hand sketches to create solid models of the components of the platform
 - d. Use the part models to create an assembly of the platform. Include at least two views of the platform in your solution.
3. Assume the depth of water in the PVC pipe that you are using for the fish tank reservoir is two inches.
 - a. Compute the volume of water in this chamber.
 - b. Compute the number of water molecules in this chamber assuming a temperature of 20°C.
4. How much salt (in grams) must be added to a two liter bottle of pure (dionized) water to make the resulting mixture 0.07 percent salt by weight?



BARBED FITTINGS:

