Test 2 homework reflection

HW 2.1

I learned how to calculate force due to static fluids. You can do this by using equation F=p/A where you use the gamma h equation to get pressure as long as the fluid is not moving. If the fluid is moving, you will use the Bernoulli's equation to get pressure. Once you calculate the centroid of the area and the center point where the force is concentrated you should be able to find the forces of a moving fluid. If you are calculating a force that is hinge you will need to factor in moment. I also learned how to calculate buoyancy force and if a vessel would be stable in the water.

HW 2.2

I learned how to calculate drag and left force. Once you calculated the drag or left coefficient which may or may not depend on Reynold number depending on your object and which direction the force Is of the fluid is flowing across the object. You can use the equation $Fd=Cd(rhoV^2/2)A$. if you do not know the velocity than a trail and error process will have to do.

HW 2.3

I learned how to calculate flow rate using flow rate meter. I also learned how to calculate forces of a fluid that is moving. After you pin point all the forces of the fluid than you can use $\varepsilon F=pQ(V_2-V_1)$.