MET 330
Test 1 Reflection
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1. This test demonstrates my work toward describing the nature of fluids and defining different fluid properties such as viscosity and pressure. In the test, we have to use different properties of fluids to solve the problems which allows us to see the connection between them. For example, in the first problem, we have to use the Bernoulli equation to be able to solve it. In Bernoulli's, we have to use specific weights and viscosity to solve for the pressure.

2. One mistake that I noticed when doing my test was my calculations. When looking at my handheld calculations and comparing them to the Excel calculations they were slightly different but still different enough to notice. I think this happened because of my rounding habits. In the future, I will use Excel more when doing calculations because it is more precise. Another mistake that I made when doing the test assuming the pressure at the exit of the pipe was the same as the pressure at the beginning of the manometer. I should have set up two Bernoullis equations. One from the surface of the liquid to the end of the pipe and another from the surface of the liquid to the beginning of the manometer. If I were to take the test again I would have told myself to look closely into the dimensions of the pipes and the pressures.

3. After grading my test I got that my score should be around 85-90. I would say that my biggest strength was getting the procedures right on problems 2 and 3 and somewhat right on problem 1. I would say my weaknesses were the data & variables section and also my calculations section.

4. Discuss the following
    a) One issue I had when completing the test was calculating the energy losses. I found myself messing up Reynolds equations because I would choose viscosity from the wrong chart which made my friction coefficient look weird.
    b) For each problem, I first figured out what my solution would be, and then I would complete the rubric requirements after. I feel like if I had time to do the pretest then I would have done that and the beginning of the rubric would have been done. But overall I would not change the way I approached this test.
    c) The main concept that stood out to me was the energy loss due to friction of the pipe, elbows, and valve.
    d) I think that engineers use this concept in scenarios like the ones in the test. When they want to figure out the pressure from point A to point B and have to account for the energy losses due to friction.
    e) I see myself using what I learned for the rest of this class but beyond that, I couldn’t tell you where I see myself using this.

f) I think that the concepts that I learned might not be useful for my professional career but I think that the problem-solving strategies that I'm learning are gonna help me professionally.
g) I could use this information to further build on my knowledge of fluid mechanics. I can see myself using these skills when I take the FE. I will use the skills I learn in the future because I want to be a successful engineer.
h) So far I have not directly been able to use what I learned in this course and apply it to other courses.
i) I feel like I was most successful at applying Bernoullis to solve for pressure.
j) I want to work on planes someday and I can see in the future that I could see myself using some things I learn from this course.
k) In total, I completed the test over 3 days. I completed the assignments that were due the same week as the test to ensure that I had enough time to complete the test. I would not do anything differently about the time I had to take the test.