

1) How and why the test demonstrates your work toward one, or more, of the course learning objectives. Be specific on the course objectives you decide to mention.

- This test not only touched on areas from the last test such as Bernoulli's principle, but focused especially on pressure drop and flow rate in a system, using Bernoulli's and new methods to solve these.. This test not only challenged me on the new knowledge, but made me think back and use prior knowledge in the course, bringing everything together.

2) How your test compares against the available solution. State the mistakes you made and what you will do next time to avoid making the same mistakes. Please point out exactly where you made the mistake, say why you made the mistake, and how you should have done it. If you were taking this test again, what advice would you give yourself to ensure that you had a successful test?

- After comparing my test to the solution on Blackboard, I found that for the first question, I had determined the pressure drop and total flow rate to be similar, as the flow rate was much closer. I think I went about it correctly, doing some math on paper, and then transitioning it to the excel sheet. I did the iterations for the first question and could see how they all relate to each other. As for the second question, I was not as right. Even after watching the lectures, I don't think I have quite grasped the concept, and was even rewatching the lectures during the class to try and get a better understanding. First off, I did not do any iterations for these parts, and honestly I thought I should have, but wasn't sure what to change to do the iterations. So, if I had done these iterations, I may have gotten much nicer and correct answers for the pressure drop and such. These iterations would have given me better energy losses, which in turn would have given correct values for pressure drop and flow rate. If I could go back, I would just trust my gut and keep trying options, because honestly, I did this for the first part, but for some reason didn't listen to myself later on.

3) What your grade should be. Base it on the writing rubric provided in the test and the correctness of your solution. What are the strengths and weaknesses of your test?

- I think I should get full credit for the writing rubric portion of the test, as I believe I completed these to the best of my ability just as I did my last test, which I got full credit for.
- As for the actual calculations, for the first part, I could see myself getting 7/10 points. Then for the second question, I could see myself getting a 9/15 about. I tried my best to understand what was happening with the second question, and I know I set the excel up correctly, I think some of the calculations were just confusing me. I think if I had been able to learn about this in actual class and not this online stuff that we have been driven to, it would have helped me, but we live on.

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Fluid Mechanics (MET 330)
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- I have discussed the strengths and weaknesses of the test above, but I believe a total grade of about 65-70 with these points added, would be respectable. I tried my best to my understanding, and I hope look even closer at the test and understand how it all works.

4) Discuss the following:

a. What issues did you encounter in completing the test? How did you troubleshoot them?

- I had to go back and rewatch the lectures a couple times to try and grasp the concepts again, and while this did help a little, I still had some issues comprehending it all. I looked in the book a bit as well, and tried to relate my problem to your solved problems from class, and this had helped me out a bit.

b. What steps did you take to complete the whole test? Would you change something?

- I watched the lectures as previously stated, and took the questions one step at a time and tried to understand what was being asked from me. I then went back through the lectures and solved problems to give me a better idea of how I may be able to go about answering the questions asked. I think if I could change something, I would have started re-watching the lectures and absorbed the information better.

c. What new concepts have you learned?

- I learned how to solve for pressure drop in a system using energy losses as well as flow rate in a system and in certain branches. The use of excel was fun as well, and this test helped me understand excel a bit more.

d. Where do you think engineers use those concepts (provide specific examples)?

- Well I think I may be using it in my internship this summer working for an engineering company that deals with fluid mechanics a lot. I may have to measure flow rate, or find the pressure drop in branches of a system. This class has truly shown me how everything I've learned is used on the job site.

e. Where do you think you will be using everything you learned?

- Well specifically on the job site as stated above, but I feel like anywhere dealing with engineering, I will be using some of the basics.

f. Do you think what you learn is important for your professional career?

- Absolutely, I will be able to go to my employer later this year and explain to him how I have learned about all these topics, and show that I know the basics of the job.

g. How, when, where and why you might use this information or skill in the future?

- On the job site, but also in other classes as well. I know that my thermal course has related to my thermal applications class now, so perhaps this will happen later on with the rest of my studies.

h. Have you been able to apply concepts you have learned in the course to what you do at work or in other courses?

- I have not up until now, but this summer I think I especially will be able to. This will be my first engineering related job/internship this summer.

i. What areas did you feel you were most successful, or improved the most?

- I feel I improved in understanding what was being asked and how to solve for it, as well as seeing and understanding that the answers I solved for at least made sense in my head as I was completing the test, other than a few questions. I also improved in my persistence on a question, meaning I would keep trying new things until I got what seemed to be the correct answer to me, especially on the first question.

j. How do you see this course's content intersecting with your field or career?

- Well, if I stay with this company, it will especially intersect with my daily works in the field. But I'm sure it will have its connections to other fields of engineering.

k. How much time did you spend on the test? How was the time organized? What would you do differently? Why?

- I would say I spent about 12-13 hours working on this test, as I wanted to make sure I was grasping the concepts correctly, and trying to put my best work forward. I started work on Monday afternoon/evening and completed it all day Tuesday. I would probably start sooner, or at least the grasping of concepts so that I may not be as stressed about the test. This switch to online classes has not helped my time management or motivation, but I am trying to keep moving the best I can.