Marylinda Quindara

Reflection

On the test, I am able to identify, analyze, and solve the problems using what I have learned from the class MET330. I identified the nature of the fluid by understanding that the whole system is continuous and by just looking at the drawing, I could tell immediately, the problem is about energy loss. The problem I notice is we never discuss chapter 11 as I mentioned before.

The biggest mistake I made was on part 2 of the exam. I believe the biggest problem I will have is the amount of dollars per installation and the amount of dollars per operation used. I just used google to determine the amount I can use. Mistakes are bound to happen if I choose the wrong one. I think I should still have an A. I did the procedure correctly and used all the possible help I could get and use. I do not think I could make it any better. I believe I used my time wisely as well. I think the biggest problem I have is over-thinking. On Saturday and maybe on Sunday too, I do not want to look at the 2nd part of the exam. It's too much and very overwhelming.

I still believe I should get an A despite having a minimum complication on the amount of money per installation and operation.

Writing Rubric

1. Purpose   0.5/10.0
2. Drawing   1.0/10.0
3. Sources   1.0/10.0
4. Design considerations   1.0/10.0
5. Data and variables   0.5/10.0
6. Procedure   2.0/10.0
7. Calculations   2.0/10.0
8. Summary   0.5/10.0
9. Materials   0.5/10.0
10. Analysis   1.0/10.0

    Total   10.0/10.0

PROBLEM 1

1. Identify all unknown dimensions in drawing   1/7 out of 1/7
2. Cancel the distance with water (x)   1/7 out of 1/7
3. Solve for the gasoline distance (y)   1/7 out of 1/7
4. Correct excel spreadsheet   1/7 out of 1/7
5. Using excel, get mercury case   1/7 out of 1/7
6. Why results make sense and manometer length   1/7 out of 1/7
7. Final results

    Total   7/7 out of 7/7

<u>PROBLEM 2</u>

1. Select pipe diameter using 3 m/s   1/8 out of 1/8
2. Compute all energy losses   1/8 out of 1/8
3. h_A and pump power   1/8 out of 1/8
4. Pressure at pump inlet   1/8 out of 1/8
5. Correct excel spreadsheet   1/8 out of 1/8
6. Pump power for 4 other pipe sizes   1/8 out of 1/8
7. Installation, operating, and total costs   .75/8 out of 1/8
8. What is the best pipe diameter?   1/8 out of 1/8
9. Final results   .75/8 out of 1/8

    Total   7.5/8 out of 8/8

<u>Final Grade:</u>

10.0+(80/2)*(7/7+7.5/8)   =   87.5

I did not get an A. A B is fine. I tried my best. I am happy. I do not think I can get better. I believe I followed all of the instructions needed and used all the help provided for us. I think this is the first time I can actually communicate with our teacher and respond right away. Typically, the response we get from the teacher takes 2 to 3 business days, but Mr. Ayala's response is quick and easy. I think that's a good advantage we need to use accordingly. There is no shame in asking questions. One homework in particular is similar to part 2 of the exam and that is 7.16 while part 2 is similar to what we did in class but instead of mercury and gasoline, we solved oil. Part 1 is very easy to do since we already did it in class. Part 2 of the exam is much more involved.

      The problem I have in the test is mostly the second problem. It is really involved. The system is huge, and we only need to be able to see that there are two systems in the test, which I believe we would not know since it's in chapter 11 of the book. We have not discussed chapter 11. We could definitely easily recognize the problem is dealing with energy losses because it is a continuous system and the pump is powered to deal with friction losses and energy losses from the pipes, fitting, ect. I think if I did not ask the teacher, I would have computed both the upper and lower part of the system. I probably would fail to recognize that the pump is not used on the upper part since gravity is the one being used to get the fluid from moving. The pump is used to power the continuous cycle of fluid only.

      Nevertheless, I believe I made minor complications on the test that I failed to recognize. I am not sure yet, but I have a feeling I forgot to calculate the suction or the fluid going to the pump. I believe I only calculate the pipe, fitting, and other friction losses.

      I ask questions to the teacher, look at chapter 11, look at the homework, and notes discussed in the class. Despite that, I will not change all my discussions. The new concept I have learned is chapter 11. Chapter 11 discusses the system.

I believe engineers will use everything when troubleshooting problems. Even Though, I do not typically use fluid mechanics at work, I think I could use it in real life situations. I currently do not know how and when I am going to use this knowledge but I think it is a good skill to learn.