Test 3 reflection

The course learning objectives that test 3 coved are the following Apply the principles of conservation of energy (Bernoulli's equation) and mass to fluid flow systems and compute friction losses in pipes for a variety of configurations (series, parallel, network, etc.).

I neglected the loss at the entrance, exit, and t fitting connection. I calculated a different height than what the solution presented. Therefore, I received a bigger flow rate than the solution for both the flow rate of problem number 1 and problem number 2. If I were to take this test again would consider all energy losses.

Based off the rubric given by the professor the grade I give myself is: (90/2)*(7/8)*(5/6)=76.87

Strengths for this test would be setting the problems up and weakness of the calculation part.

a) Issues I had during the test was understanding how you got 2 different flow rates until I compared it to parrel circuit then it clicked. The other issue I had during this test was the excel portion and I troubleshooted that by starting over with the equation.
b) The step I took to complete the test was I wrote the whole process of how I was going to complete the problem, wrote down all my given data, label everything appropriately then started with the simplifying Bernoulli's equation then taking that equation into two equations for each branch and applied the appropriate head loss for each equation then set those two equations each other and did iteration to get the flow rate. Then created an equation for the 3rd branch and compared it to the top branch equation to make sure they matched then did iteration until the correct flow rate was calculated.
c) How to determine a pipe size and what the flow rate would be if you made a parallel pipe system.
d) I think engineers use the concept of this test all the time to determine the best possible solution for a pipe system.
e) At any job that deal with pipe systems.
f) I do think what I learned for this test for my professional career.
g) If I was to get a job that delt with pipe system I would use this information all the time to do the job successfully.
h) No, I have not had the opportunity to apply what I have learned for this test to my career yet.
i) I feel like I most successful at setting the problem and equation up. The area that I need improving is excel.
j) Until I took this class I always though about sticking with structural since I am a structural designer at Newport News Shipbuilding, but I enjoy this class that doing something with fluids is a possibility.
k) I spent probably about 15 hours on this test, and I just started working on in after work and worked on it a few hours. I wouldn't change anything because I worked with the time frame I had and did the best I could.