

This test demonstrates the work for specialized topics in fluid mechanics. This test helps identify and solve for different very specific industrial problems, such as, open-channel flow, cavitation, water hammer, drag, lift, forces in pipes, and learn about different instruments to measure fluid flow quantities such as, pressure, fluid velocity, and flow velocity.

In comparing the test, question 1 was similar to the solutions. However, when solving Q_c was not included. In question 3, my procedure was similar to the solution. However, instead of using 0.012, I used 1.2. This caused my solution to be slightly off. My solution for question 4 was not the same. I did not use Bernoulli's equation as it was intended. The results were a bit off in comparison. My solution for question 5 had only slight variation from the solutions. My solution for question 6 was wrong. The process was similar but I failed to use the right significant figures leading to a much larger solution.

Based on this, I would give myself an 80-82.

I have learned the design process that many engineers go through. These problems are similar to the problems that will be encountered in the field. This includes the design of an open flow channel and checking for cavitation. These are important skills to learn as it involves the design of systems. The things I felt I improved upon the most was the analyzation of a problem before figuring out ways to attack it. This courses content will intersect in the plumbing field and other systems that require the use of fluid mechanics. It will come up in the design process very frequently.