- 1. In exam three, we were tested on our subjects relating to parallel and series pipe systems. There were two questions in which we were tasked to do one. I did the second question of the exam and for the first part, it was a just a simple series problem. We were given flow rate and we were tasked to find delta pressure. The only loss in the system was due to friction, and the system required a single Bernoulli's equation to solve. The second part was a little more complicated due to the pipe system being parallel. We had to express two Bernoulli's equations and solve for three unknowns. I fallowed the steps thought to us in class for iteration and suing excel I iterated to find the correct answerer. However, I do believe I messed up the excel bad, so I am no confident in my answer.
- 2. I honestly think I did alright on the exam, the first problem manipulated bernoulli's to solve for delta P, we had gamma, and were able to calculate the velocity using flow rate and the flow area of the two-inch pipe. For the second part, I was confused about the length it took to get to pipe 2, and the integration of head losses with the two different pipes, but overall, my biggeset hurdle was the excel. I DEEPY DEEPLY DEEPLY apologize, I ran out of time and I was panicing with the excel which may have caused me to make some catostophic mistakes.
- 3. Discuss the following:
 - a. What issues did you encounter in completing the test? How did you troubleshoot them?
 - i. For part a, I was confused on finding the velocity of the water flowing through the pipe, I tries to sub v for 2*q/pi*D^2, however, I remembered that I have flow rate and area is given to us in the book. As for the second problem, my excel was giving me issues, I fallowed the steps of iteration however got confused when guessing values, it didn't dawn on me until the end that that was the whole point, the first estimation didn't matter, it only gave me a percent difference which I could assume my next iteration from.
 - b. What steps did you take to complete the whole test? Would you change something?
 - i. I panicked a little, and I got heavily overwhelmed due to the amount of time I had left to finish the test, I know 5 days were given and I spent a good amount thinking of ways to solve question 2, however, I had other responsibilities that caused a delay on my exam and forced me to submit it late. And I APPLOIGIZE for that mistake.
 - c. What new concepts have you learned?
 - i. Iteration was so confusing at the beginning but after you get a solid equation, it is very easy, ofc with the help of excel.
 - d. Where you think engineers use those concepts (provide specific examples)?
 - i. Working at the shipyard, I have learned that not one single thing needs fluid at a given time, parallel system are very common in the industry due to the damand of fluids at many stations. Series systems are basically half

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of parallel systems and are easy to calculate. The losses due to minor and major losses are important in the field because you want to know your flow rates, losses, and power requirements to make good decisions.

- e. Where do you think you will be using everything you learned?
 - I plan to work for the shipyard, and one thing all the maritime industry has is the fluid water. So not only the things I learned from this exam but I need to learn the whole of fluid mechanics to ensure a great carrier.
- f. Do you think what you learn is important for your professional career?
 i. Definitely. I have stated as such above.
- g. How, when, where and why you might use this information or skill in the future?
 - i. For example, I used to run a side lawn care hustle, some of my clintes asked me to buld a water sprinkeler system for their yard. I didn't have the maths or the credibbilites to do so, but for the future, if I ever want to build a water sprinkler system for my house, I now have to math to support my decisions which will prevent me from using more money.
- 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. Yes, at the shipyard I work at.
- i. What areas did you feel you were most successful, or improved the most?
 - i. bernoulli's was definitely reinforced and concreted in this exam.
- j. How do you see this course's content intersecting with your field or career?
 - i. I expect it to pave my future. And help me secure a job in the maritime industry.
- k. How much time did you spend on the test? How was the time organized? What would you do differently? Why?
 - i. This is a hard subject for me. I am not proud of my time mangamnent for this exam, I could have definatly done better, however certain circumstances called from certain actions. I am sorry it has affected my performance in this class.

WRITING	RUBRIC		
1. Pur	oose	0.5/10.0	
2. Drawings		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		0.0/10.0	
7. Calculations		2.0/10.0	
8. Summary		0.0/10.0	
9. Mat	eriais	0.0/10.0	
1. <u>PR</u>	<u>IBLEM ZJ</u>		
-	. Reasonable assum	iptions (reductions, valve, tubing dia	am,
	lengths) 1/10		
-	Apply Bernoulli twice or get 2 equations from		
	Bernoulli	1/10	
3. Consider ALL minor losses? Handled them		or losses? Handled them	
	correctly?	2/10	
,	Handled correctly	the nine	
-		1/10	
		1/10	
	. Obtained 3 equati	ons with 3	
	unknowns?	1/10	
6. Solved system of equations correctly		equations correctly	
	(Excel?)?	0/10	
	7. Final results		0/10
	TOTAL		6/10
			0/10

FINAL GRADE:

(90)*(6/10) = 54