

TEST # 2

WRITING RUBRIC

1. Purpose	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	2.0/10.0
7. Calculations	1.0/10.0
8. Summary	0.5/10.0
9. Materials	0.5/10.0
10. Analysis	0.5/10.0

TOTAL: **8.5/10.0**

PROBLEM (1)

1. Open channel depth (y)	
a. Correct equation	0.5/2
b. Area and Hydraulic radius	1/2
2. Pipe-elbow forces	
a. Free body diagram and correct forces	1/3
b. Force in x	1/3
c. Force in y (weight)	1/3
3. Largest wood log	
a. Size	0.5/2
b. Stable?	1/2
4. Flow-nozzle flowmeter pressure drop	
a. Right equation and A_1/A_2	1/2
b. C value	1/2
5. Water hammer pressure increase	
a. Wave velocity (units?)	1/2
b. Pressure increase	1/2
6. Drag force on a stuck log	
a. Correct area	1/3
b. Correct velocity	1/3
c. How C_d was obtained?	1/3
7. Force on the flange	
a. Magnitude	1/2
b. Location	1/2
8. Final actual values of the results	0.5/1

FINAL GRADE:

$$8.5 + (80/8) * (1.5/2 + 3/3 + 1.5/2 + 2/2 + 2/2 + 3/3 + 2/2 + 0.5/1) = 71$$