Test 1 Reflection

For the first question I got the right answer but because I carried some significant figures I got a little bit higher T3, I got 3040K while the answer was 3035.212K. For the second question I made some dumb mistakes, which made all my answers off from the solutions. I didn't put a 6^{th} state for my T-S or P-V diagrams, and getting your states correct is very vital for solving any problems in this course. I switched up my temperatures for my state 5 and state 5a. This caused my solutions to be slightly off because I used the state 5 temperatures when I switched up my state 5 and state 5a temperature. For part a I got nth=.382 and the solution was nth=.409 but I did get the heat exchanger effectiveness correct. For part b I got an answer that was slightly off, I got 3.049 kg/s and the correct answer was 3.2 kg/s. For part C I never changed the temperature for state 3 which caused my answer to be off. I got nth=.40789 when the correct answer was nth=.463. I made the some dumb mistakes for question 3, similar mistakes to question 2. I messed up on the T-S and P-V diagram. I didn't put a state 5a on my T-S diagram. Also for T3 I didn't use first law, I used the 500kj/kg as the h3s to get T3 when I should of solved it right by using first law. Because of that I got my temperatures and pressures for state 3-5 wrong which made my solutions wrong. My answer for part b and part c came close though. For part b I got V6=828.5 m/s when the answer was V6=805.10 m/s. For part C I got F=170,247.6N when the correct answer was F=163.293N

The questions for the test aren't just about finding the correct answer but its about explaining the answer and why the system work or doesn't work. Its important to know the functionality of these questions than just the answer. Overall I graded myself a C+and hope to avoid little mistakes on my next test.