

Test 4 Reflection

The learning objectives the 4th test in Heat Transfer class discussed was. Solve simple convection heat transfer problems. Differentiate between forced and natural convection heat transfer. Solve force convection problems using different experimental correlations. Describe heat transfer through tube banks and packed beds.

I took a different approach to solving this problem. When solving for h air and h outside air I set the problem up to equal total Q but they should have been set equal to Q_2 . I had the wrong equation when solving for h of water. I solved for h by using the $Q_t = hA(T_i - T_o)$ since the inlet and outlet temperature were given.

The grade I was give myself based on the rubric provided:

$$10 + 80 * (12/15) = 74$$

During the test I encountered trouble with getting started, so broke it down and just started from the beginning using what I learned in class to work through the problem. I started the test by breaking down the problem and process what it was stating and asking for. Then I started with the drawing to help visualize everything. Then stated writing everything I knew about the problem and worked it from there. during the class lecture and test have learned how to calculate convection heat transfer, how to calculate convection heat transfer coefficient. Engineers use heat transfer knowledge for heating and air-conditioning, designing refrigerator and chest freezer, or managing temperatures for technology so it doesn't overheat. I have not had the opportunity to use the heat transfer knowledge yet, but I could use it in the future in my career if I decide to get a job that works with anything that might need have a controlled temperature to keep it from overheating or if it needs a certain temperature to function properly. I would say my strength for the test is knowing the equation to use, and my weakness for be setting the problem up. I spend about 15 hours on the test and the only think I would do again is start working on it early and be better about time management.