Complete Exam III properly.

Obtain the converged tube outlet temperature and report all the intermediate variables requested in questions, 1, 2, and 3 of the exam. Do not assume the average wall temperature given for the exam.

This could be done using the code for solving Heat Exchangers given at http://clausius.engr.utk.edu/che240/text/codes.html

This code would have to be modified to account for the fact that

\[ T_{\text{shell, out}} = T_{\text{shell, in}} = T_{\text{sat}} \]

which is given.

However, this only makes the problem easier, since now we have only one unknown outlet temperature. We are not given \( \dot{m}_{\text{shell}} \), the mass flowrate of the steam but this won’t effect the iterative procedure to obtain our one unknown temperature \( T_{\text{tube, out}} \). Since the program requires \( \dot{m}_{\text{shell}} \), just plug in a bogus value.