Quiz 1

MAC 2302/3305

Show all of your work for full credit.

1. Find an integrating factor and solve the differential equation:

\[ y' = e^{2x} + y - 1 \]

2. Verify that the general solution to the above equation is

\[ y(x) = e^{2x} + 1 - ce^x \]

and determine the particular solution for which \( y(0) = 0 \).