Tips for HW14

1. The mass flow energy transport rate (E\_dotmass) is the combined mdot \* e terms (in and out). Where you draw your control volume will make this problem either easy, or nearly impossible. Draw around both of the reservoirs so velocity difference is nearly zero. Remember, mass flow is equal to volume flow times density. You can find change in enthalpy using the incompressible substance model (where Δu = C\*ΔT)
2. Use air tables to get enthalpy values. Neglect PE and KE terms. Remember the sign convention for Q (positive vs. negative for heat leaving the system)
3. Very simple steady-state, aergonic First Law problem. However, you will need to find enthalpies of R134a. Interpolate using tables, or use EES to get the enthalpy values.