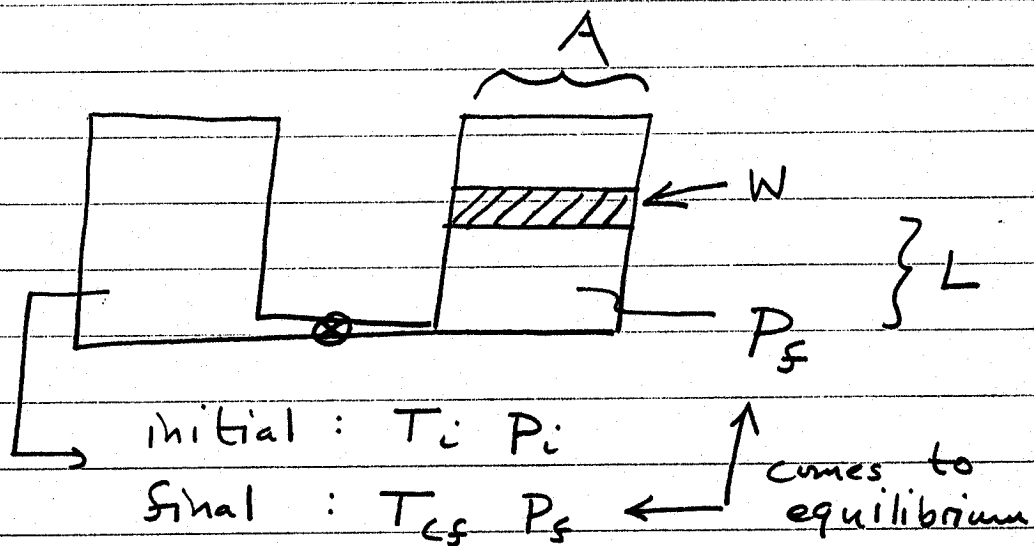


2.8



left chamber is in an isentropic process with pressure drop, so

$$\frac{P_f}{P_i} = \left(\frac{T_f}{T_i} \right)^{\frac{\gamma}{\gamma-1}} \quad \frac{P_f}{P_i} = \left(\frac{P_f}{P_i} \right)^{\gamma}$$

initial mass in right chamber ≈ 0

initial mass in left chamber

$$m_c = m_i = \rho_i V_c$$

at final state:

$$m_c = \rho_f V_c \quad m_R = \rho_f A L$$