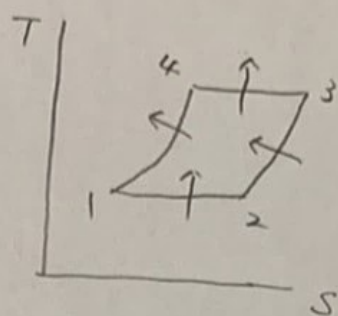
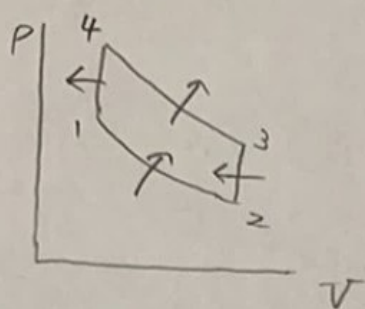


[1]

(1) 冷凍機

(2)



(3) 1 to 2 $Q_{12} = m R T_L \ln(V_2/V_1)$

2 to 3 $Q_{23} = m C_V (T_H - T_L)$

3 to 4 $Q_{34} = -m R T_H \ln(V_2/V_1)$

4 to 1 $Q_{41} = -m C_V (T_H - T_L)$

(5) 成績係数 $\varepsilon_R = T_L / (T_H - T_L)$

(6) 1 to 2 $S_{12} = m R \ln(V_2/V_1)$

2 to 3 $S_{23} = m \left\{ a \ln(T_H/T_L) + b(T_H - T_L) + c(T_H^2 - T_L^2)/2 \right\}$

3 to 4 $S_{34} = -m R \ln(V_2/V_1)$

4 to 1 $S_{41} = m \left\{ a \ln(T_L/T_H) + b(T_L - T_H) + c(T_L^2 - T_H^2)/2 \right\}$

[2]

(1) 212.37°C

(2) $0.0995361 \text{ m}^3/\text{kg}$

(3) 1888.6 kJ/kg

(4) 1475.2 kJ/kg

(5) 906.2 kJ/kg

(6) 2023.3 kJ/kg

(7) 過熱蒸氣