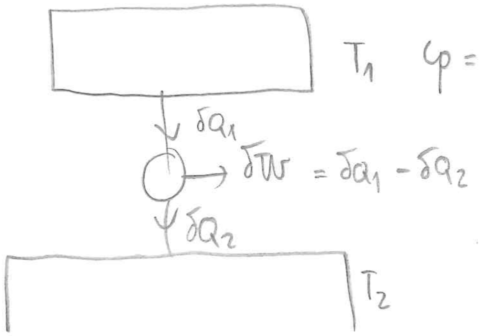


$c_p = a + bT$

$\delta W = \delta Q_1 - \delta Q_2$

$\int \delta W = \int \delta Q_1 - \int \delta Q_2 \Rightarrow \boxed{W = Q_1 - Q_2}$ balio absolutuak

$$\left.\begin{array}{l} \delta Q_2 = T_2\, dS_2 \\ dS = 0 \Rightarrow dS_1 + dS_2 = 0 \Rightarrow dS_2 = -dS_1 \end{array}\right\} \delta Q_2 = -T_2\, dS_1$$

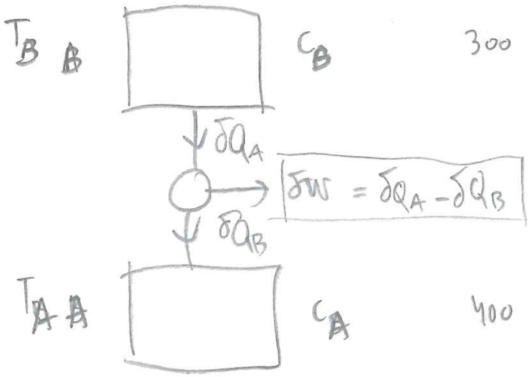
$dS_1 = \frac{c_p}{T_1} dT_1$

integratu gabe.

$\delta Q_2 = -T_2 \frac{c_p}{T} dT_1 \Rightarrow Q_2 = -T_2 \int \frac{c_p}{T} dT \Rightarrow \boxed{\cancel{Q_2 = -T_2 c_p \ln\left(\frac{T_2}{T_1}\right)}}$

$\delta Q_1 = c_p\, dT_1 \Rightarrow Q_1 = \int c_p\, dT \Rightarrow Q_1 = c_p \Delta T \Rightarrow \boxed{\cancel{Q_1 = c_p (T_2 - T_1)}}$

$W = c_p \left[ (T_1 - T_2) + T_2 \ln\left(\frac{T_1}{T_2}\right) \right]$



balio absolutuak

$$\left.\begin{array}{l} \delta Q_i = T_i\, dS_i \Rightarrow dS_i = \frac{\delta Q_i}{T_i} \quad i = 1,2 \\ \delta Q_i = c_i\, dT_i \end{array}\right\} dS_i = \frac{c_i}{T_i} dT_i$$

$dS = 0 \Rightarrow dS_1 + dS_2 = 0 \qquad \frac{c_B}{T_B} dT_B + \frac{c_A}{T_A} dT_A = 0$

$\Delta S = 0 \Rightarrow c_B \ln \frac{T_f}{T_B} + c_A \ln \frac{T_f}{T_A} = 0 \Rightarrow \ln \left[ \frac{T_f^{c_B}}{T_B^{c_B}} \cdot \frac{T_f^{c_A}}{T_A^{c_A}} \right] = 1$

eta [illegible]

[illegible] zein den baldintza eta zer konstante den

$T_f^{c_A + c_B} = T_B^{c_B} T_A^{c_A}$

$\boxed{T_f = \left[ T_B^{c_B} T_A^{c_A} \right]^{1/(c_A + c_B)}}$

$\delta W = \delta Q_1 - \delta Q_2$

$\int \delta W = \int \delta Q_1 - \int \delta Q_2 \Rightarrow W = Q_1 - Q_2$

$- c_B (T_f - T_B) - c_A (T_f - T_A)$

eta gero zeinua aldatu.