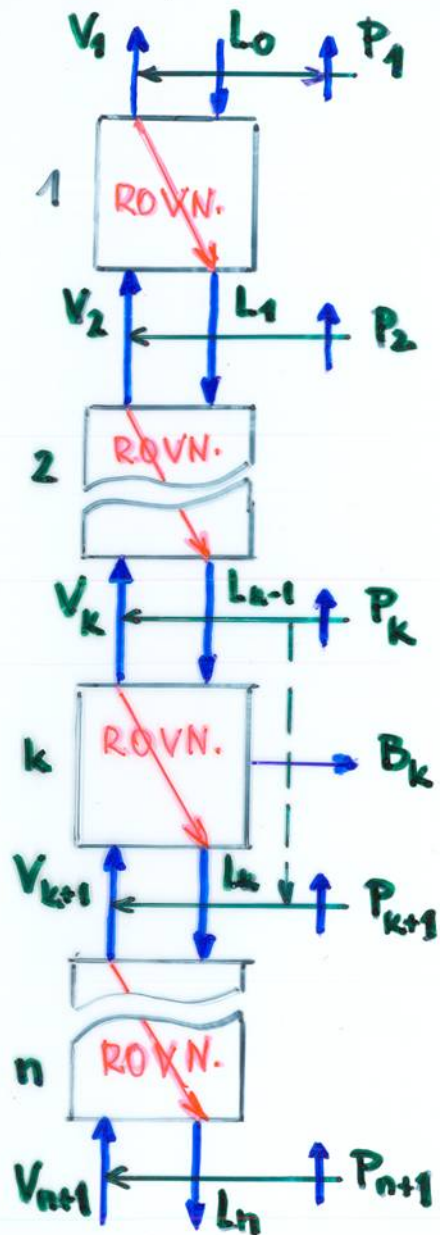




ROVN.:

$$y_i = K_i x_i$$

$$V_i = S_i L_i$$

$$(V_i = g_i V, L_i = x_i L, \\ S_i = \frac{K_i V}{L} = \frac{1}{A_i})$$

$$g_i = K_j \alpha_{ij} x_i \quad (\alpha_{ij} = K_i / K_j)$$

$$\begin{array}{cc} y_i & y_i \\ \downarrow \text{r.b.} & \uparrow \text{b.v.} \\ x_i & x_i \end{array}$$

BIL.: $V_{k+1} - L_k = P_{k+1}$

(DIF. PROUD) $V_{i,k+1} - L_{ik} = P_{i,k+1}$

$$g_{i,k+1} V_{k+1} - x_{i,k} L_k = z_{i,k+1} P_{k+1}$$

$$h_{v,k+1} V_{k+1} - h_{l,k} L_k = h_{p,k+1} P_{k+1}$$

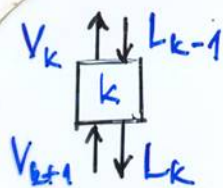
B:

$$P_{k+1} = P_k + B_k$$

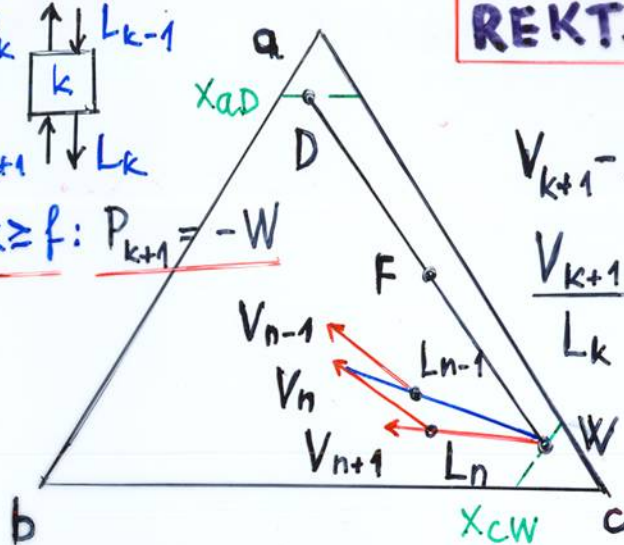
$$P_{i,k+1} = P_{ik} + B_{ik}$$

$$H_{p,k+1} = H_{pk} + H_{B,k} + Q_k$$

REKT. $c=3$



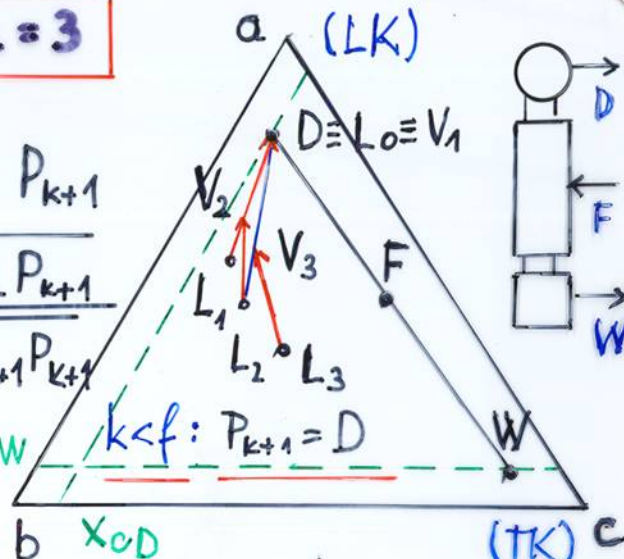
$k \geq f: P_{k+1} = -W$



$$V_{k+1} - L_k = P_{k+1}$$

$$\frac{V_{k+1}}{L_k} = \frac{L_k P_{k+1}}{V_{k+1} P_{k+1}}$$

x_{aW}

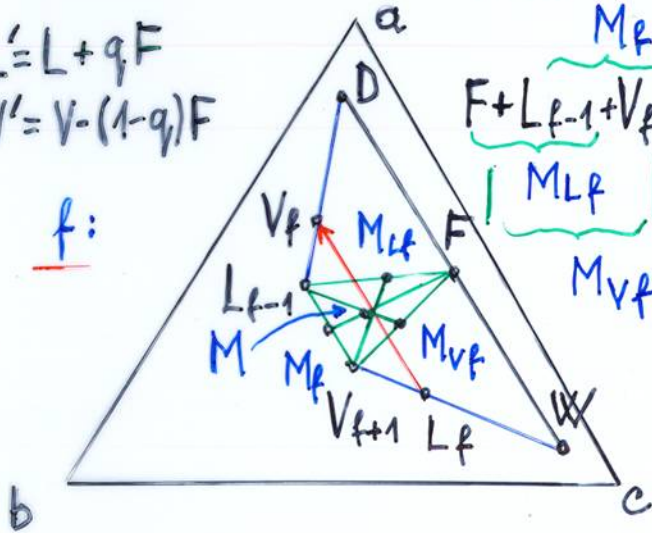


$k < f: P_{k+1} = D$

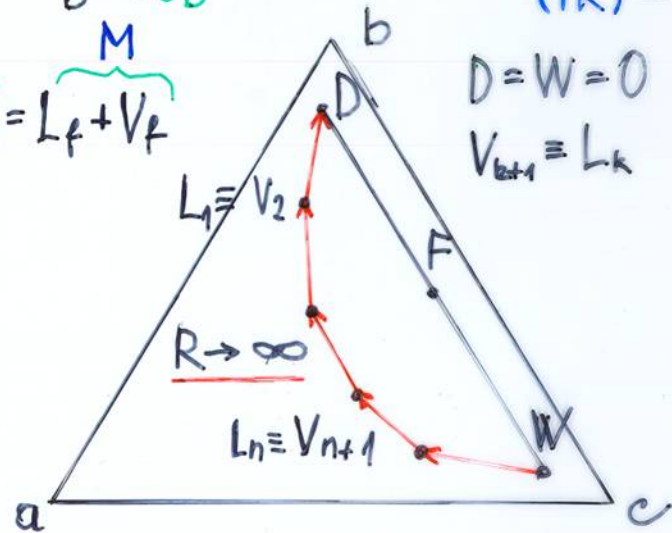
$$L' = L + qF$$

$$V' = V - (1-q)F$$

$f:$

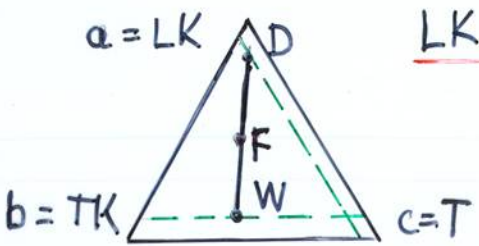


$$F + L_{f-1} + V_{f+1} = L_f + V_f$$

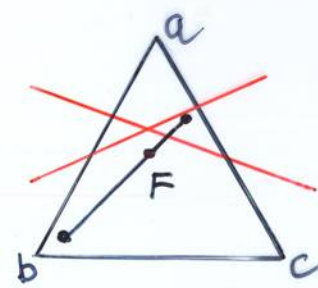
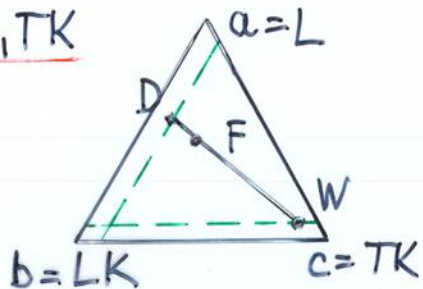


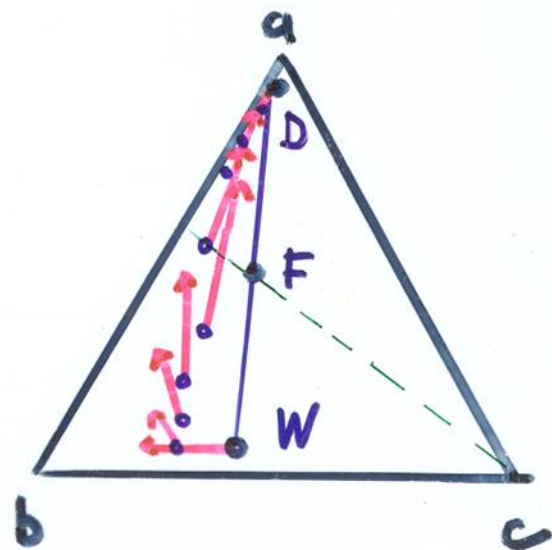
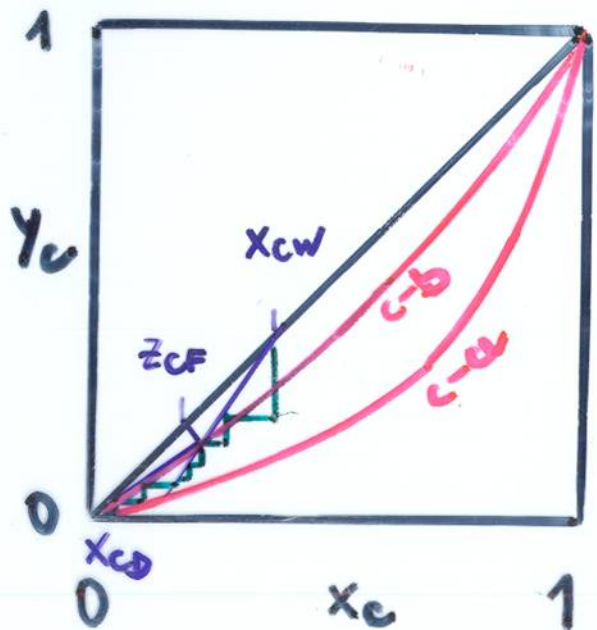
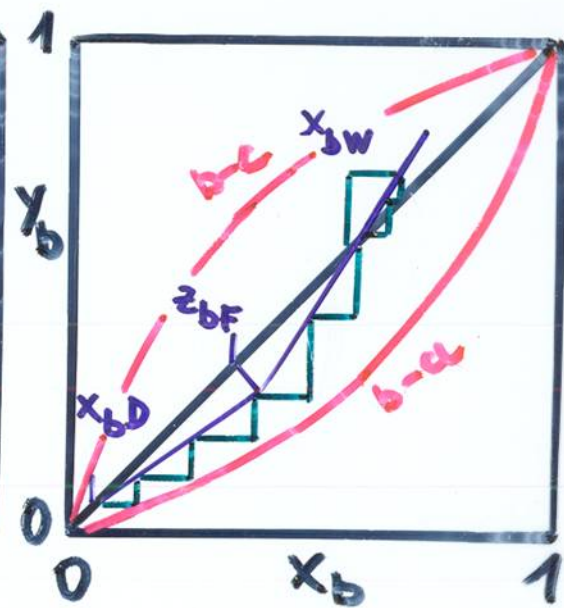
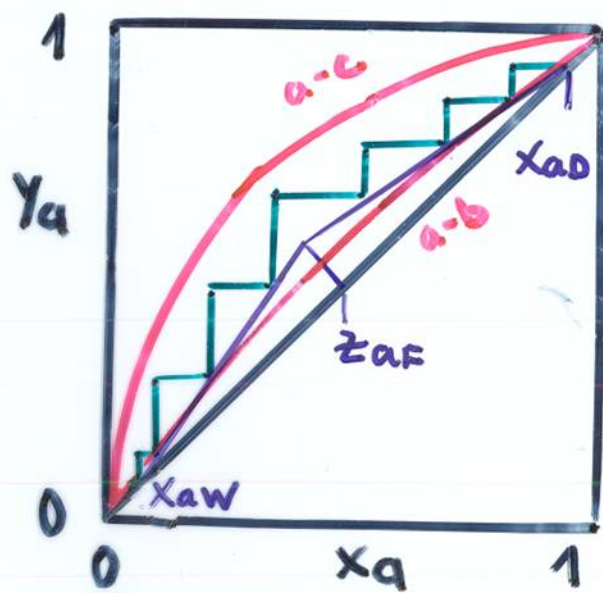
$$D = W = 0$$

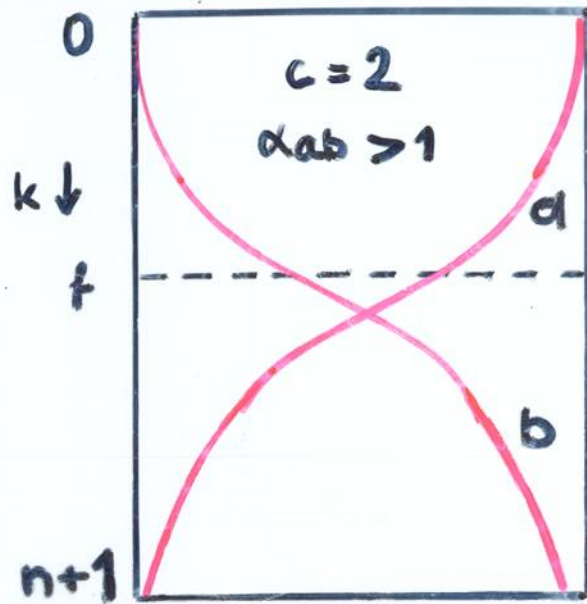
$$V_{k+1} \equiv L_k$$



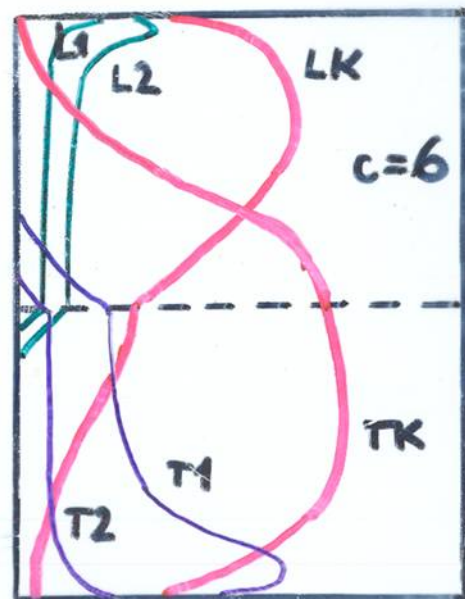
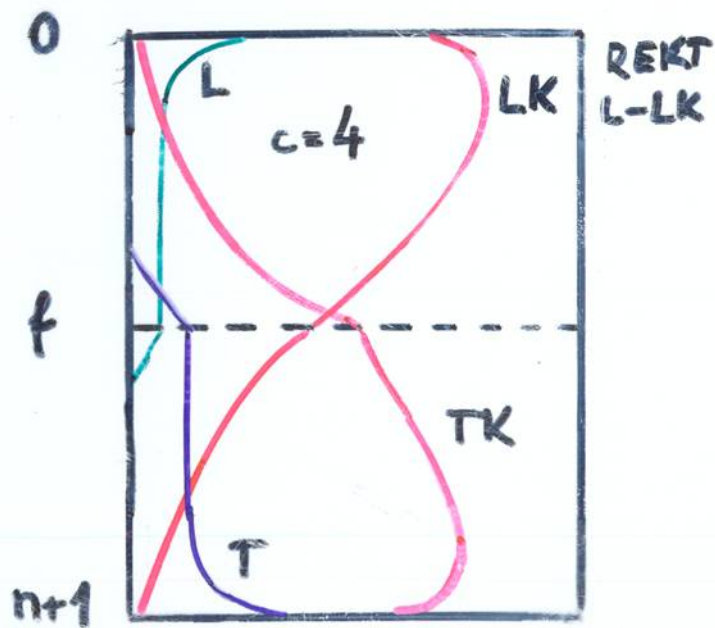
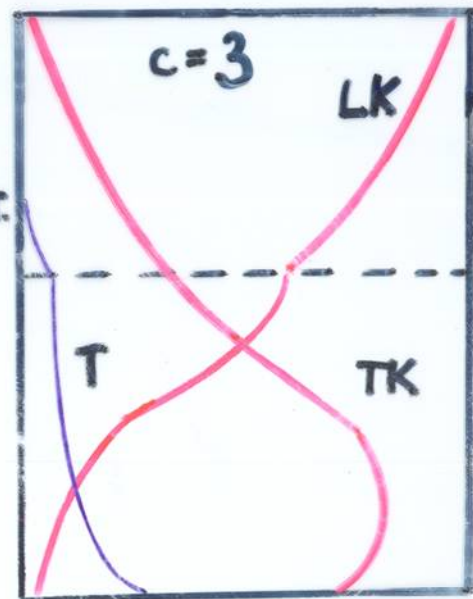
LK, TK







REKT.
T



$$\textcircled{1} \bar{E} = \frac{c}{\bar{v}_s}$$

$$\textcircled{2} E_{ixk}^0 = \frac{x_{ik-1} - x_{ik}}{x_{ik-1} - x_{ik}^0}$$

$$E_{iyk}^0 = \frac{y_{ik} - y_{ik+1}}{y_{ik}^0 - y_{ik+1}}$$

$$\sim y_{ik} = K_{ik}(t^{\sim}) x_{ik}^{\sim}$$

$$1 = \sum x_{ik}^{\sim} K_{ik}(t^{\sim})$$

$$1 = \sum y_{ik}^{\sim} / K_{ik}(t^{\sim})$$

$$E_{ixk}^{\sim} = E_{iyk}^{\sim}$$

$$M y_{ik}^M = x_{ik} K_{ik}(t_L)$$

$$1 = \sum$$

$$x_{ik}^M = y_{ik} / K_{ik}(t_v)$$

$$1 = \sum$$

$$\textcircled{3} E_{ik}^V = \frac{y_{ik}}{y_{ik}^V}$$

$$E_{ik}^L = \frac{x_{ik}}{x_{ik}^L}$$

$$E_{ik}^V = 1 / E_{ik}^L$$

$$y_{ik}^L = x_{ik} K_{ik}(t^{\sim})$$

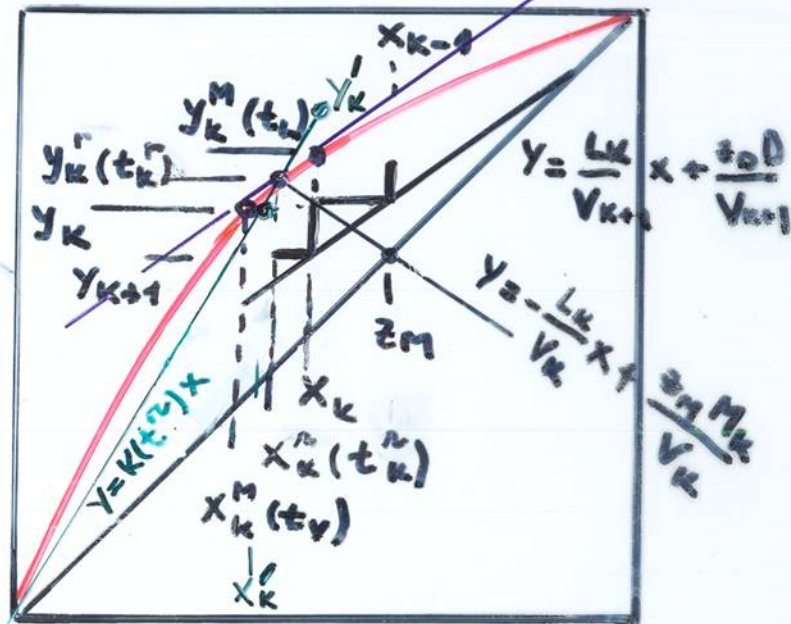
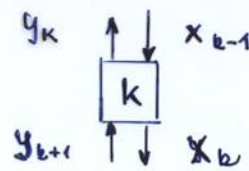
$$x_{ik}^L = \frac{y_{ik}}{K_{ik}(t^{\sim})}$$

$$y_{ik} = E_{ik}^V K_{ik}(t^{\sim}) x_{ik}$$

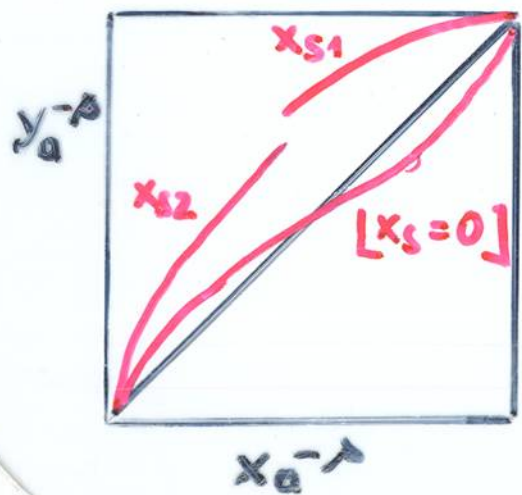
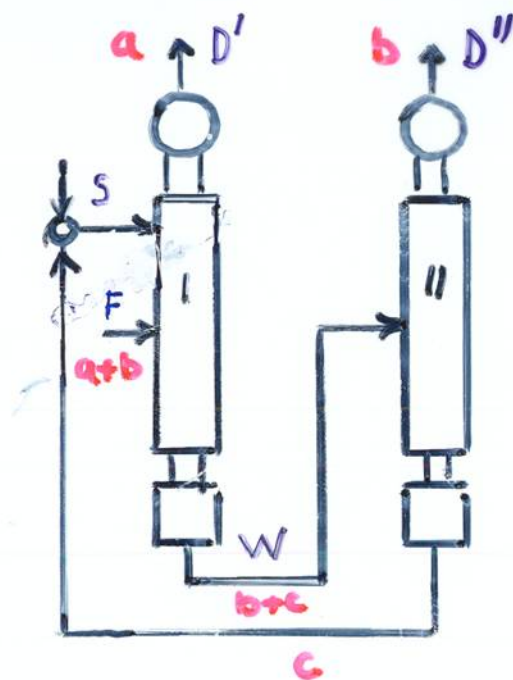
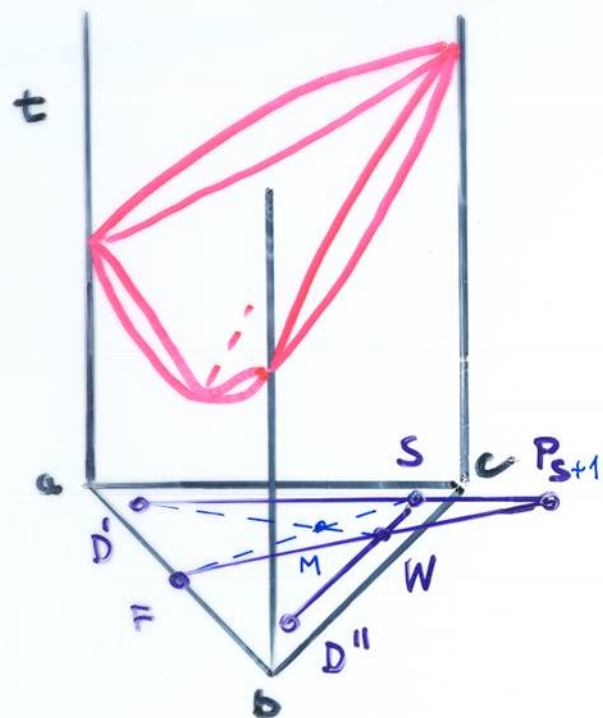
$$1 = \sum$$

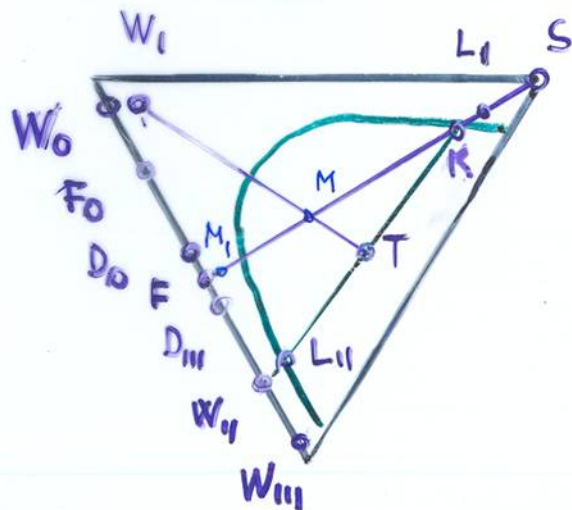
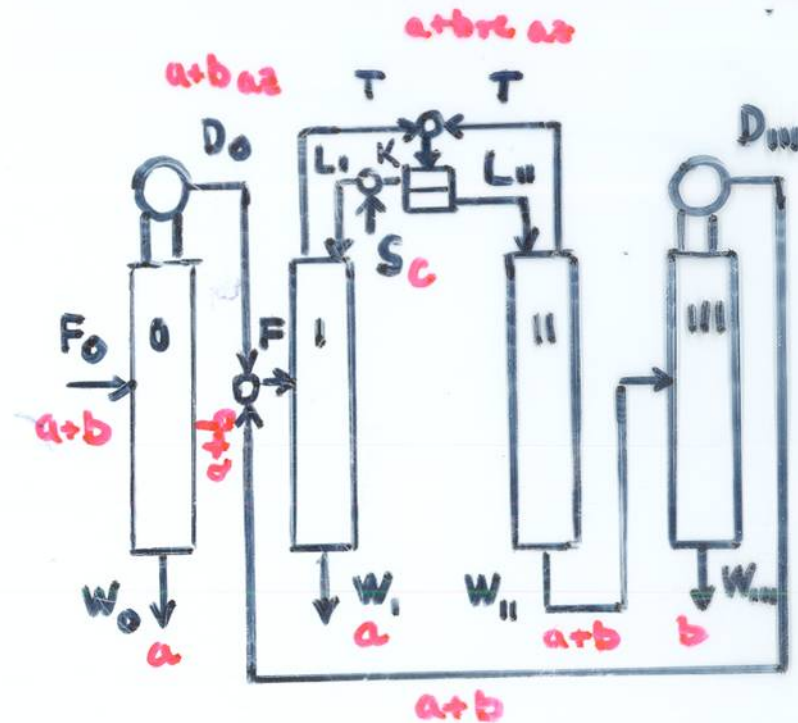
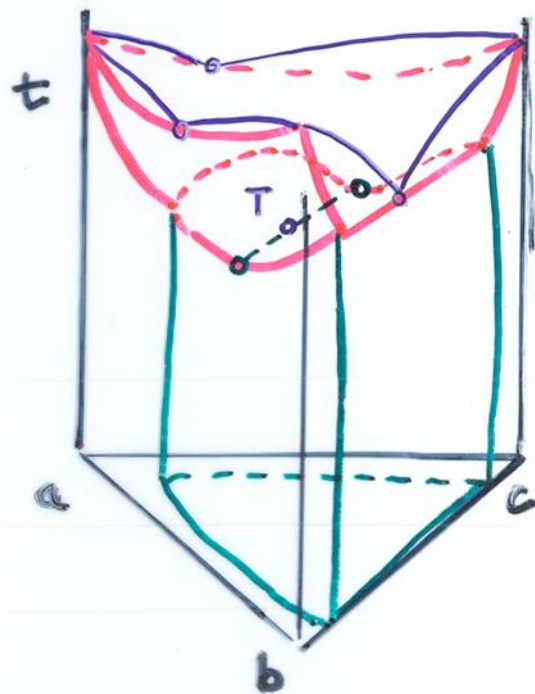
$$x_{ik} = \frac{y_{ik} E_{ik}^L}{K_{ik}(t^{\sim})}$$

$$1 = \sum$$



$$\frac{1}{E_y^M} - 1 = \frac{V_{mi}}{L} \left(\frac{1}{E_x^M} - 1 \right)$$





$$F_0 = D_0 + W_0$$

$$D_0 + D_{III} = F$$

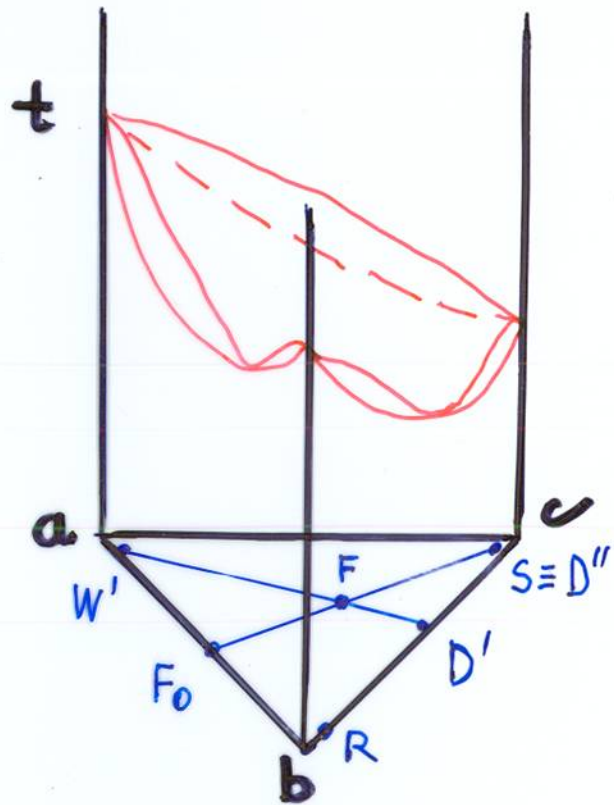
$$F + S = W_I + W_{II} \quad (= M_I)$$

$$F + L_I = W_I + T \quad (= M)$$

$$L_I = K + S$$

$$W_{II} = L_{II} - T$$

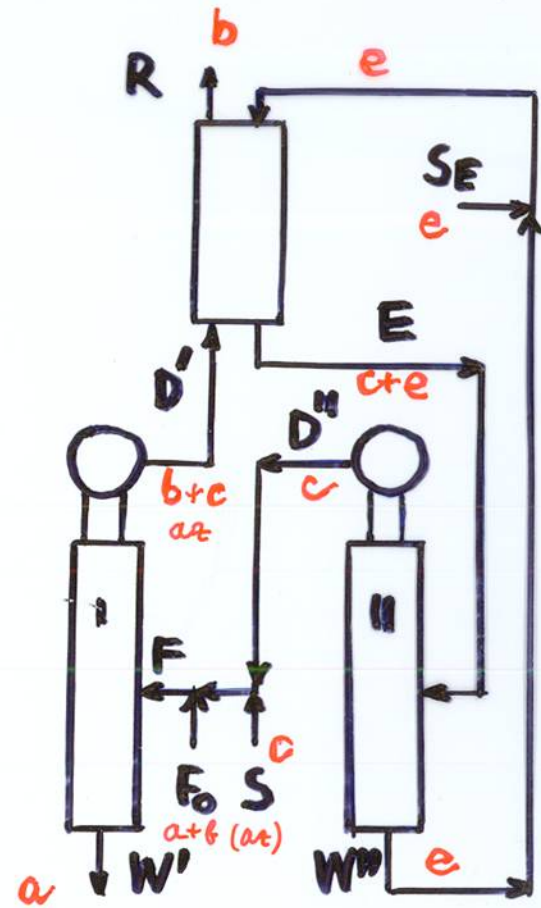
$$W_{II} = D_{III} + W_{III}$$

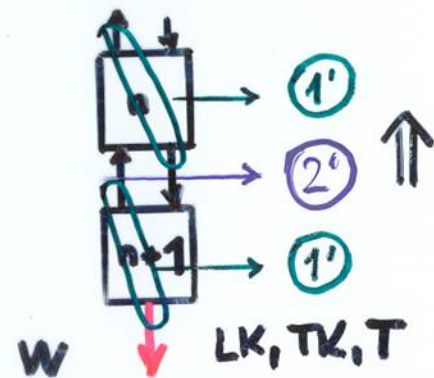
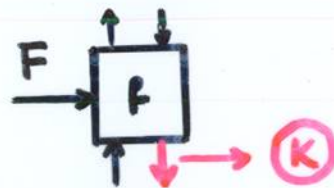
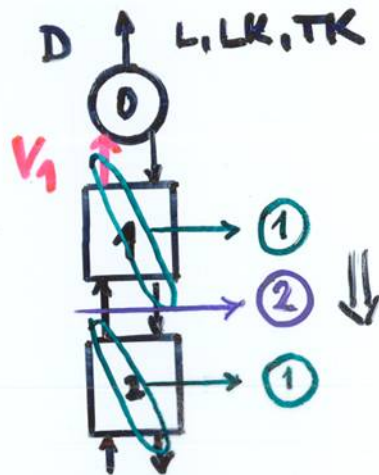


$$F_0 + S + D'' = F$$

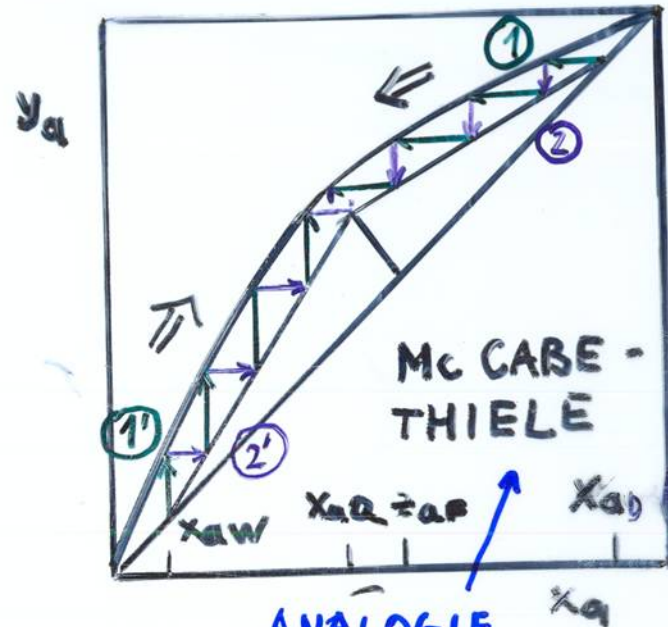
$$F = D' + W'$$

$$D' = R + D''$$





(K) $x_{LKf} \leq x_{LKQ} \leq x_{LKf-1}$
 $x_{TKf} \leq x_{TKQ} \leq x_{TKf-1}$
 $x_{if} \downarrow \approx x_{if} \uparrow$



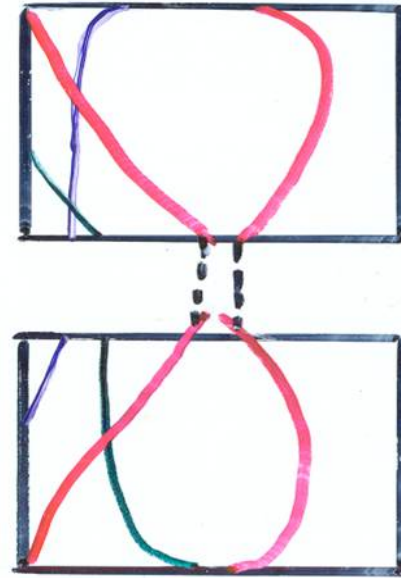
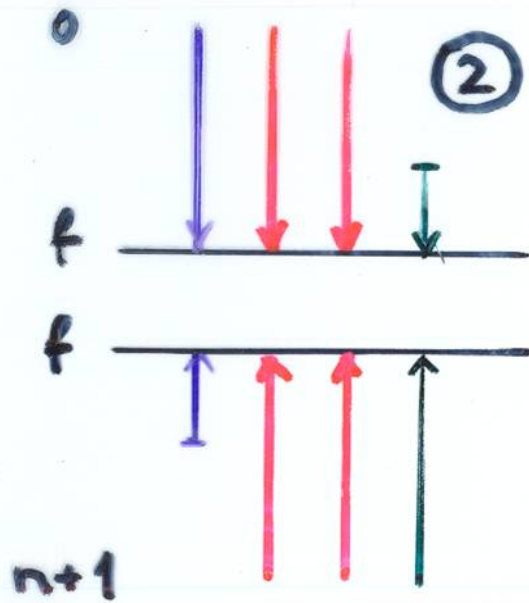
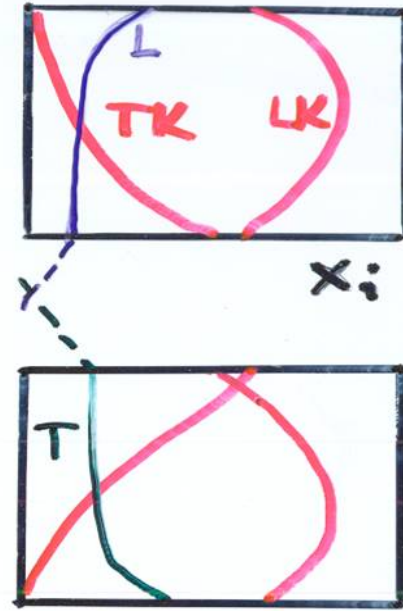
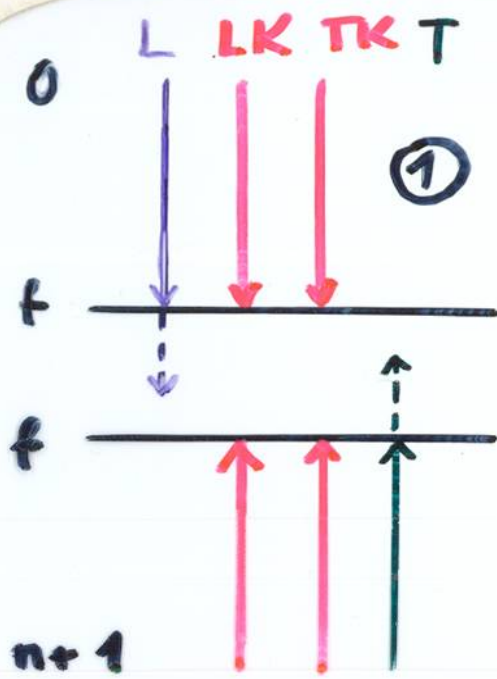
LEWIS - MATHESON

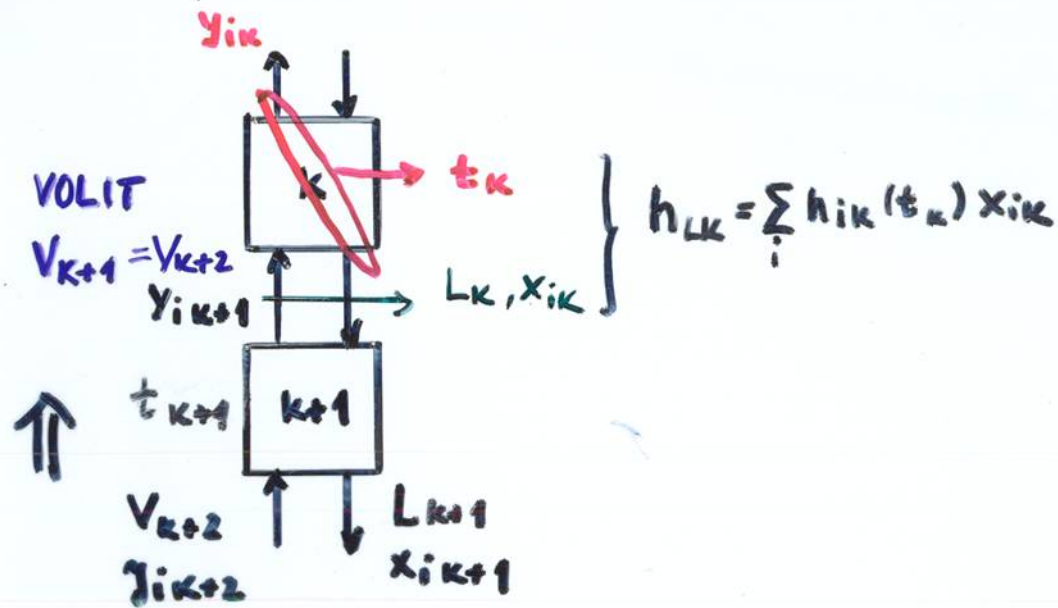
① $y_{ik}, p_k \Rightarrow t_k, x_{ik}$ (ROVN.)
 (V_{ik}) (L_{ik}, x_{ik})

② $x_{ik} \Rightarrow y_{ik+1}$ (BIL.)
 (L_{ik}) (V_{ik+1})

①' $x_{ik}, p_k \Rightarrow t_k, y_{ik}$ (ROVN.)
 (L_{ik}) (V_{ik})

②' $y_{ik+1} \Rightarrow x_{ik}$ (BIL.)
 (V_{ik+1}) (L_{ik})





$$\left. \begin{aligned} V_{k+1} h_{V_{k+1}} - L_k h_{Lk} &= P_{k+1} h_{P_{k+1}} \\ V_{k+1} - L_k &= P_{k+1} \end{aligned} \right\} V_{k+1} = P_{k+1} \frac{h_{P_{k+1}} - h_{Lk}}{h_{V_{k+1}} - h_{Lk}}$$

$$L_k h_{Lk} = \sum_i h_{ik} L_{ik} = V_{k+1} \underbrace{\sum_i h_{ik} y_{ik+1}}_{h'_{Lk}} - P_{k+1} \underbrace{\sum_i h_{ik} x_{ik+1}}_{h''_{Lk}}$$

$$L_{ik} = V_{k+1} y_{ik+1} - P_{k+1} x_{ik+1}$$

ELIM. x_{ik}

$$V_{k+1} = P_{k+1} \frac{h_{P_{k+1}} - h''_{Lk}}{h_{V_{k+1}} - h'_{Lk}}$$