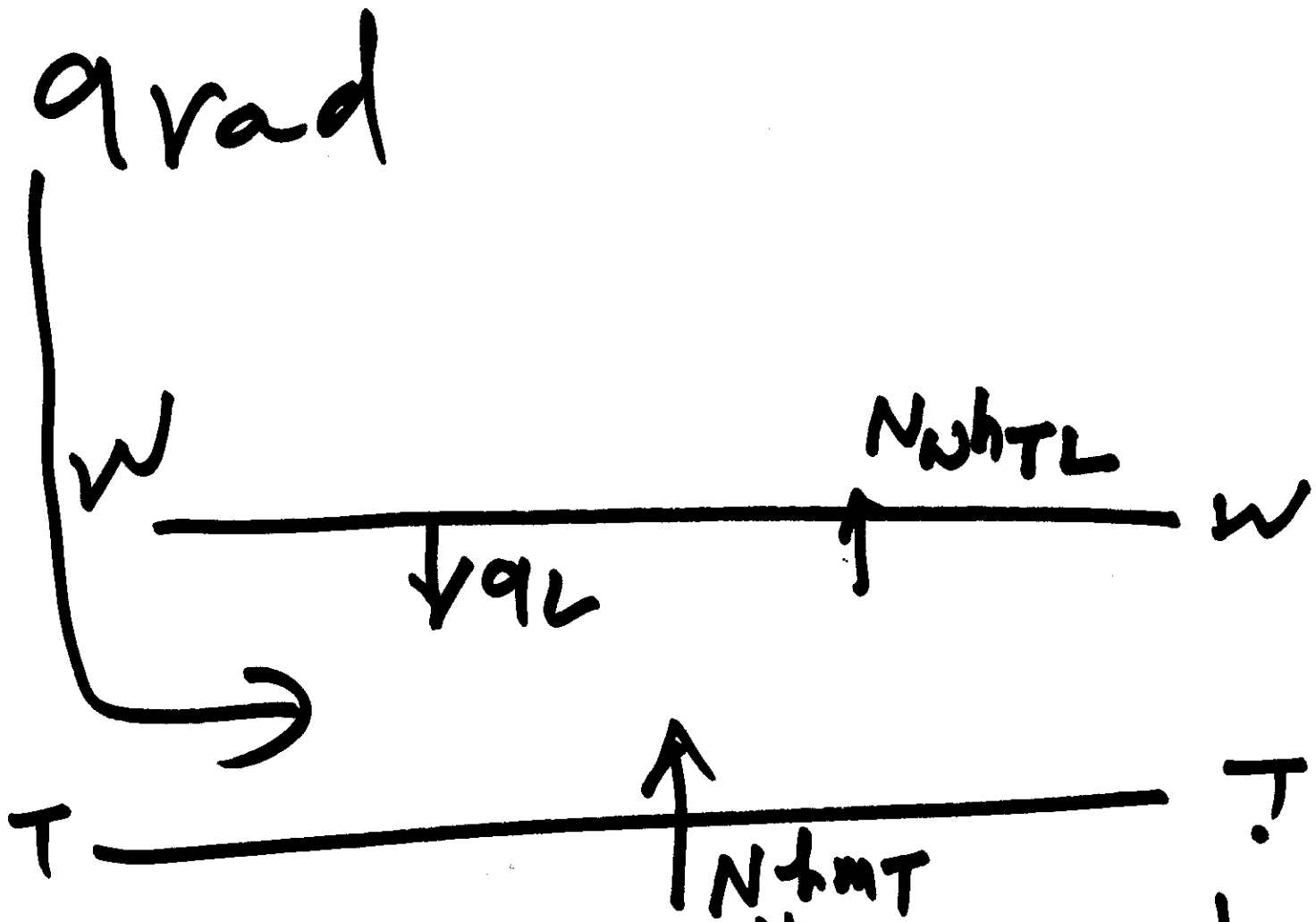
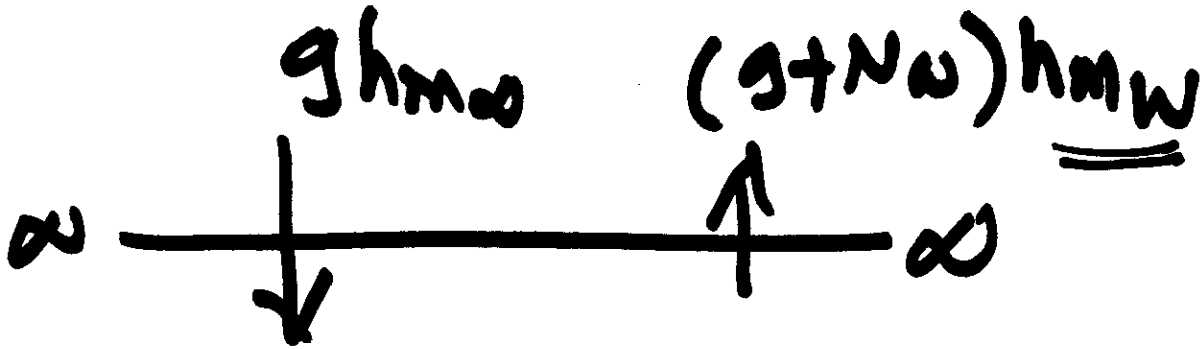
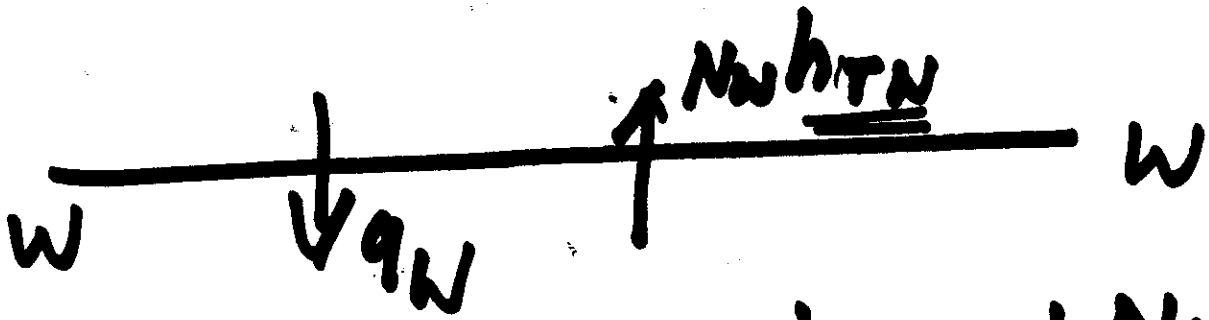
Prof Ace Date
Lec-35-34.
Date 1-4-11



$$N_N h_{mT} + q_L + q_{rad} = N_N h_{TL}$$





Energy flow in $= g h_{fm\infty} + N_w h_{fw}$

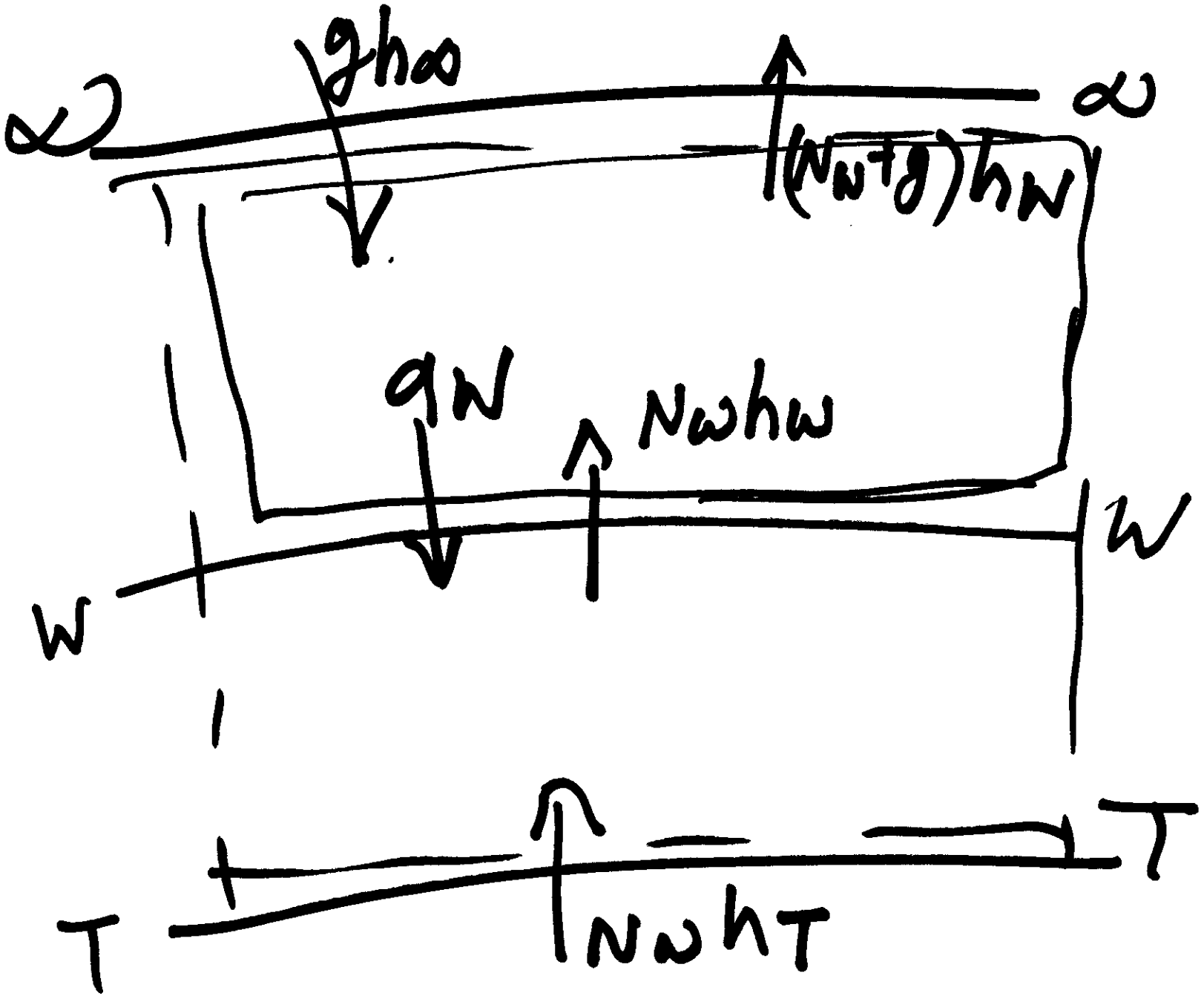
" " out $= (g+N_w) h_{fm_W} + q_W$

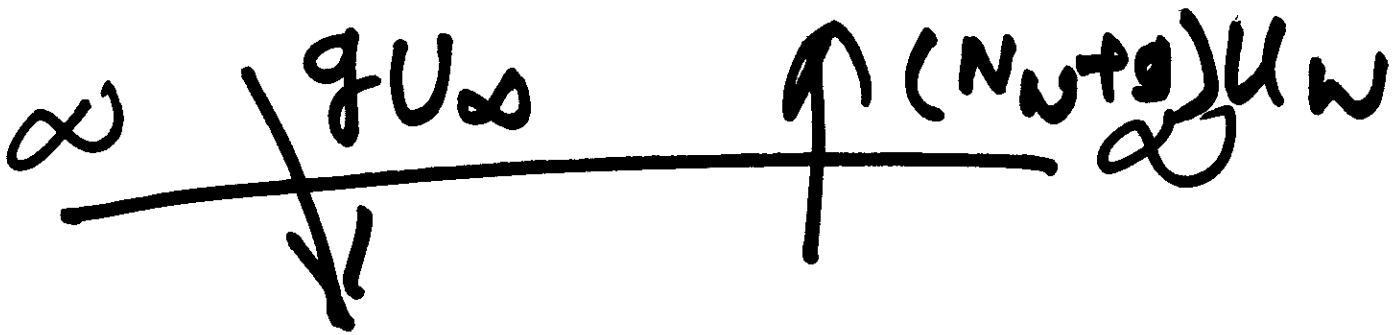
$$q = \frac{h_{C_f, Vw}}{c_p} \cdot \frac{\rho U_\infty}{\rho U_\infty}$$

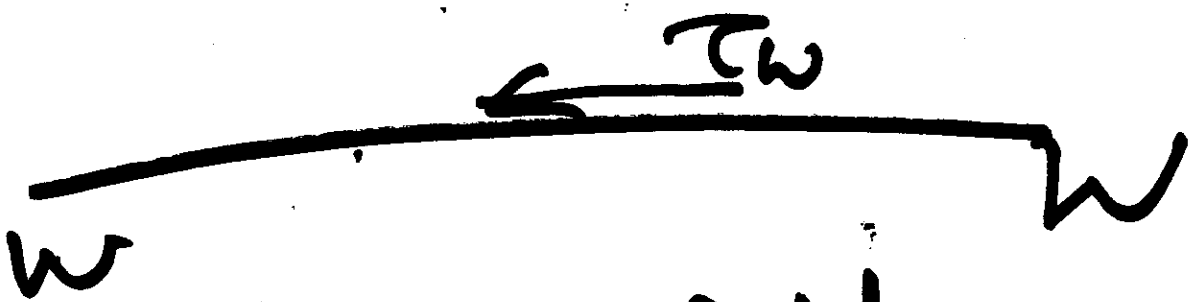
$$= St_x \cdot \rho U_\infty$$

$$= \underline{\underline{\rho U_\infty \cdot St_{x_{Vw}} \cdot (H.t)}}$$

$$= \rho U_\infty \left(\frac{C_f}{2}\right) \text{Momtx}$$


$g h_\infty$
∞
$(N_W + g) h_W$
q_N
$N_W h_W$
W
W
T
T
$N_W h_T$

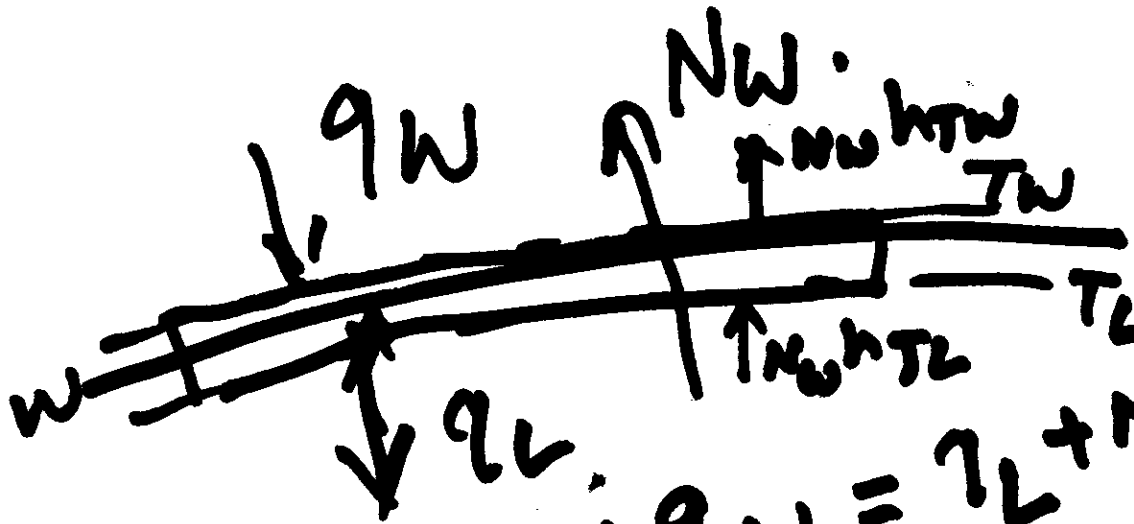




Mom in = ρU_∞

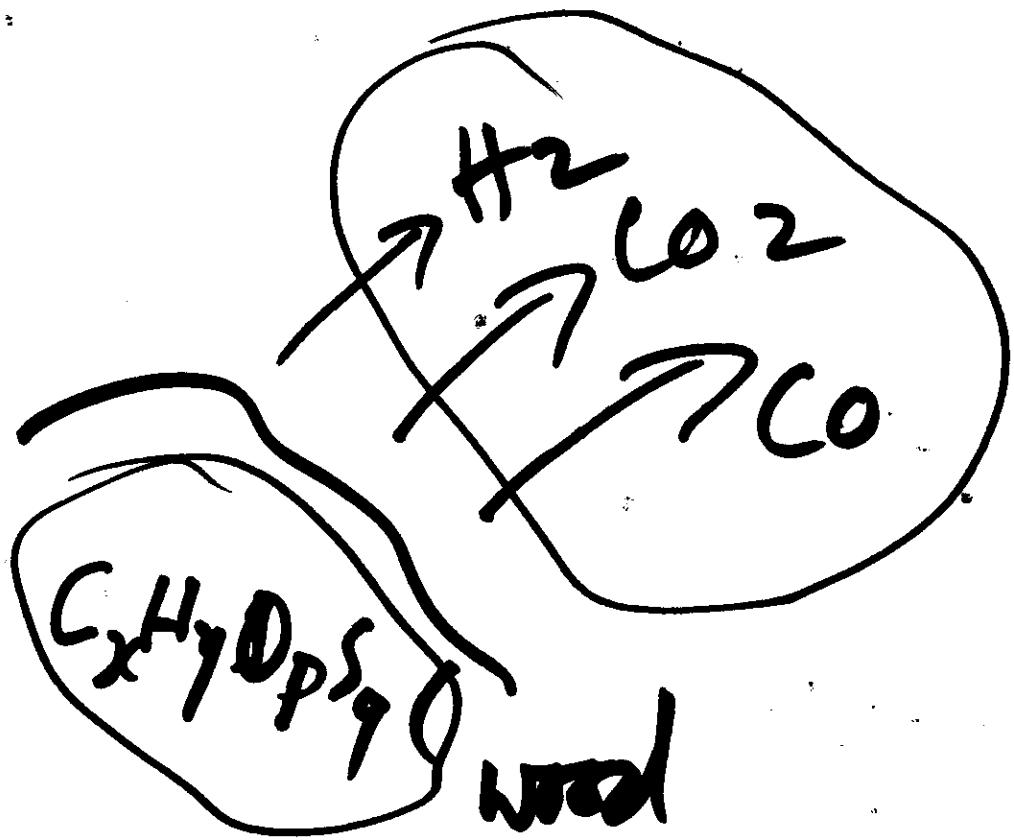
Mom out = $(N_w + \cancel{\rho})\cancel{U_w} + \tau_w$

$\rho U_\infty = \tau_w$



$$N_W \cdot h_{TL} + q_W = q_L + N_W h_{TW}$$

$$q_W - q_L = N_W (h_{TW} - h_{TL})$$

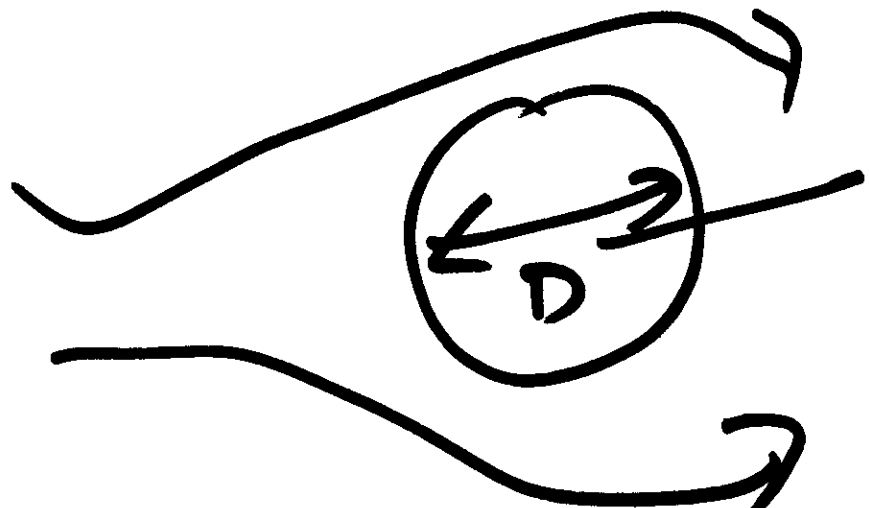

H2
CO2
CO
CxHyOpSq
wood

$\left(\frac{kg}{m^2-s}\right) g \longrightarrow h_{cof,\, v_w=0}$ $\left(\frac{W}{m^2-K} = \frac{J}{m^2-s-K}\right)$

(correlation)

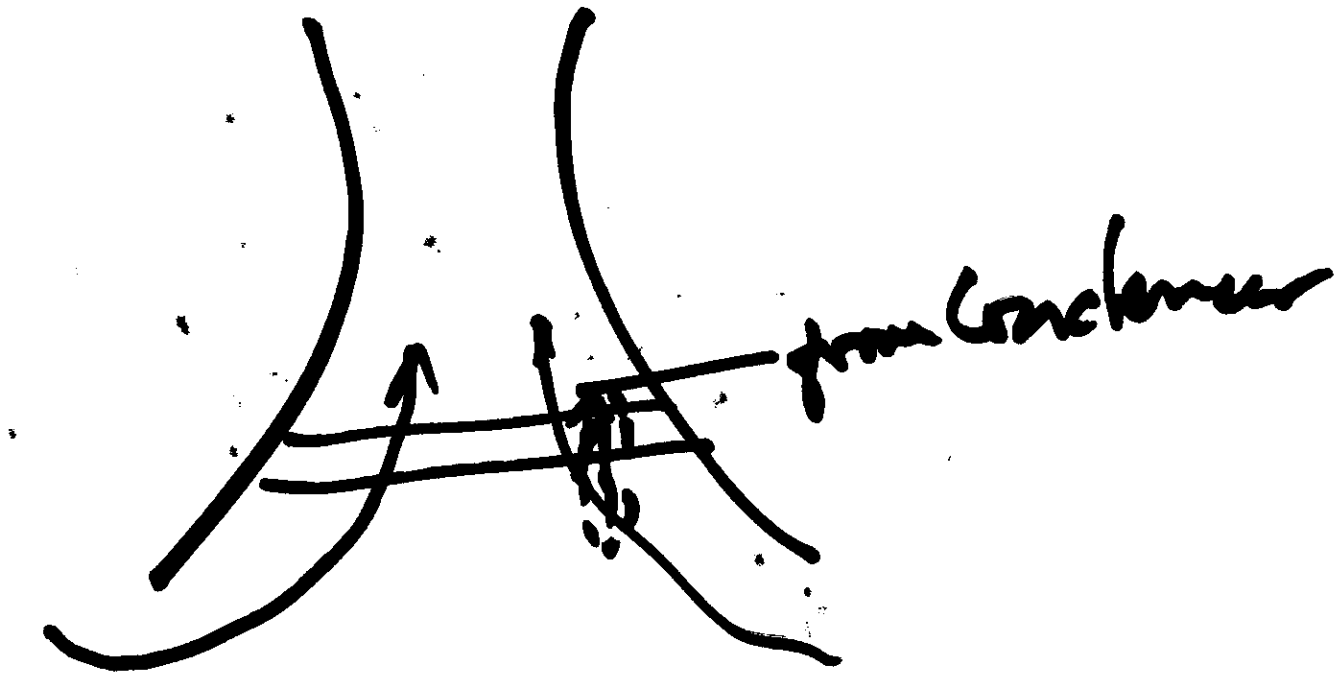
$Nu_D = f(Re_D, Pr)$

$\left(h_{cof,\, v_w=0}\right)$



$g \propto \frac{h_{cof,\, v_w=0}}{c_p}$ $\frac{kg-K}{m^2-s-K-J}$

$= \frac{kg}{m^2-s}$


from Condenser

$x \in \mathbb{R}^n$

$x = x_1 e_1 + \cdots + x_n e_n$

$e_j = \begin{bmatrix} 0 \\ \vdots \\ 0 \\ 1 \\ 0 \\ \vdots \\ 0 \end{bmatrix} \leftarrow j^{th}$ place.

$\|x\| = 1$

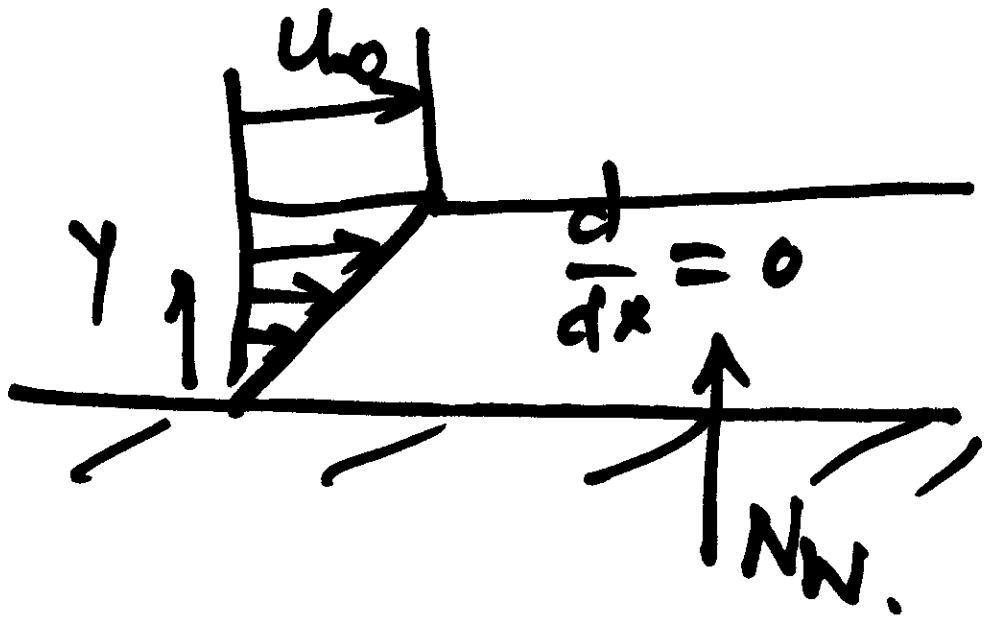
$Ax = x_1 Ae_1 + \cdots + x_n Ae_n$

$= x_1 C_1 + \cdots + x_n C_n \simeq \dot{0}$.

$C_1, C_2, \cdots, C_n$: almost lin. dependent.

$$0.\underline{\alpha_1 \cdots \alpha_n} \times 10^{Exp}.$$

$\alpha_1 \neq 0$. $\Leftarrow$ $\underline{n : \text{fixed}}$.


u_0
y
1
$\frac{d}{dx} = 0$
N_N.