$$C\left(\frac{v_{ref}}{u_T}\right)^2 = C\frac{v_{ref}^2 \cdot \rho_{ref}}{\tau_w}$$

$$\tau_w = \mu \left.\frac{\partial u}{\partial y}\right|_w = \mu C$$

$$\therefore \frac{C \nu_{ref}^2 \rho_{ref}}{\mu_{ref} C} = \nu_{ref}$$

$$\frac{P^2}{RuT}\left[\frac{M_g M_a}{\eta_k \omega_g + \eta_g(1-\omega_g)}\right]\frac{\partial \omega_g}{\partial y} = N_w(\omega_g - \omega_{g,T})$$

$$\int_{\omega}^{\omega} \frac{d\omega_g}{(\omega_g - \omega_{g,T})\left[\eta_k \omega_g + \eta_g(1-\omega_g)\right]} = \frac{N_w P}{RuT}\cdot\frac{1}{\eta_g M_a}\int_0^{\delta} dy$$

$$= \frac{N_w P}{RuT}\,\frac{\delta}{\eta_g M_a}$$

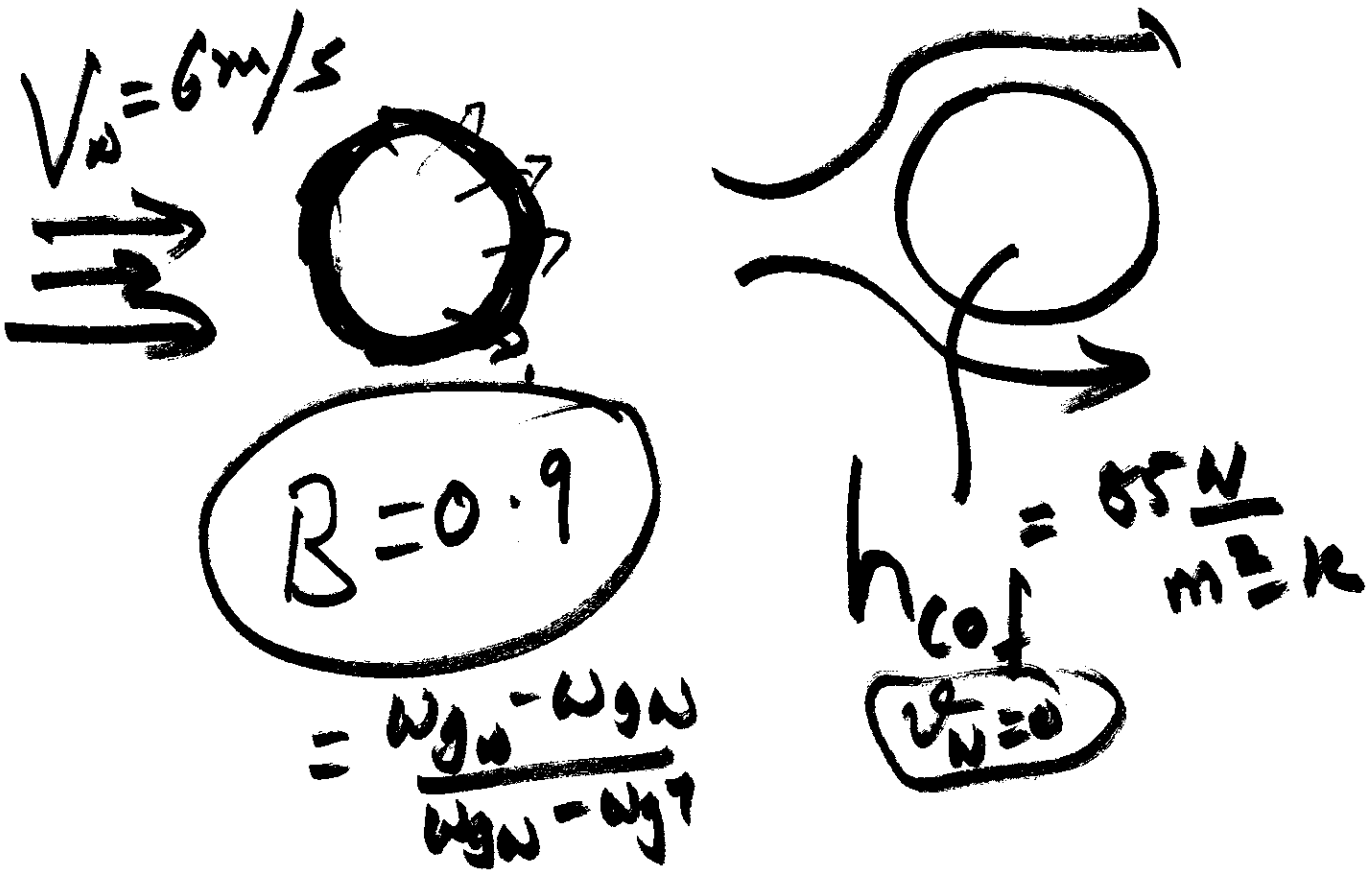
$$\cancel{\frac{\partial}{\partial x}(\rho\omega)} + \frac{\partial}{\partial y}[\rho v \omega] = \frac{\partial}{\partial y}\left[\rho_m \mathcal{D} \frac{\partial \omega}{\partial y}\right]$$

$$N_\omega \frac{\partial \omega_g}{\partial y} = \frac{\partial}{\partial y}\left[\rho_m \mathcal{D} \frac{\partial \omega_g}{\partial y}\right]$$

$$M_{mix} = \left[\sum \frac{\omega_j}{M_j}\right]^{-1}$$

$$= \frac{1}{\frac{\omega_g}{M_g} + \frac{\omega_a}{M_a}}$$

$$\underline{\underline{M_{mix}}} = \frac{1}{\frac{\omega_g}{M_g} + \frac{1-\omega_g}{M_a}} = \frac{M_a M_g}{M_a \omega_g + (1-\omega_g) M_g}$$


$V_\infty = 6 m/s$
$B = 0.9$
$= \frac{\omega_{g_0} - \omega_{g_N}}{\omega_{g_N} - \omega_{g_1}}$
$h_{col} = 85 \frac{W}{m^2 K}$
$v_N = 0$