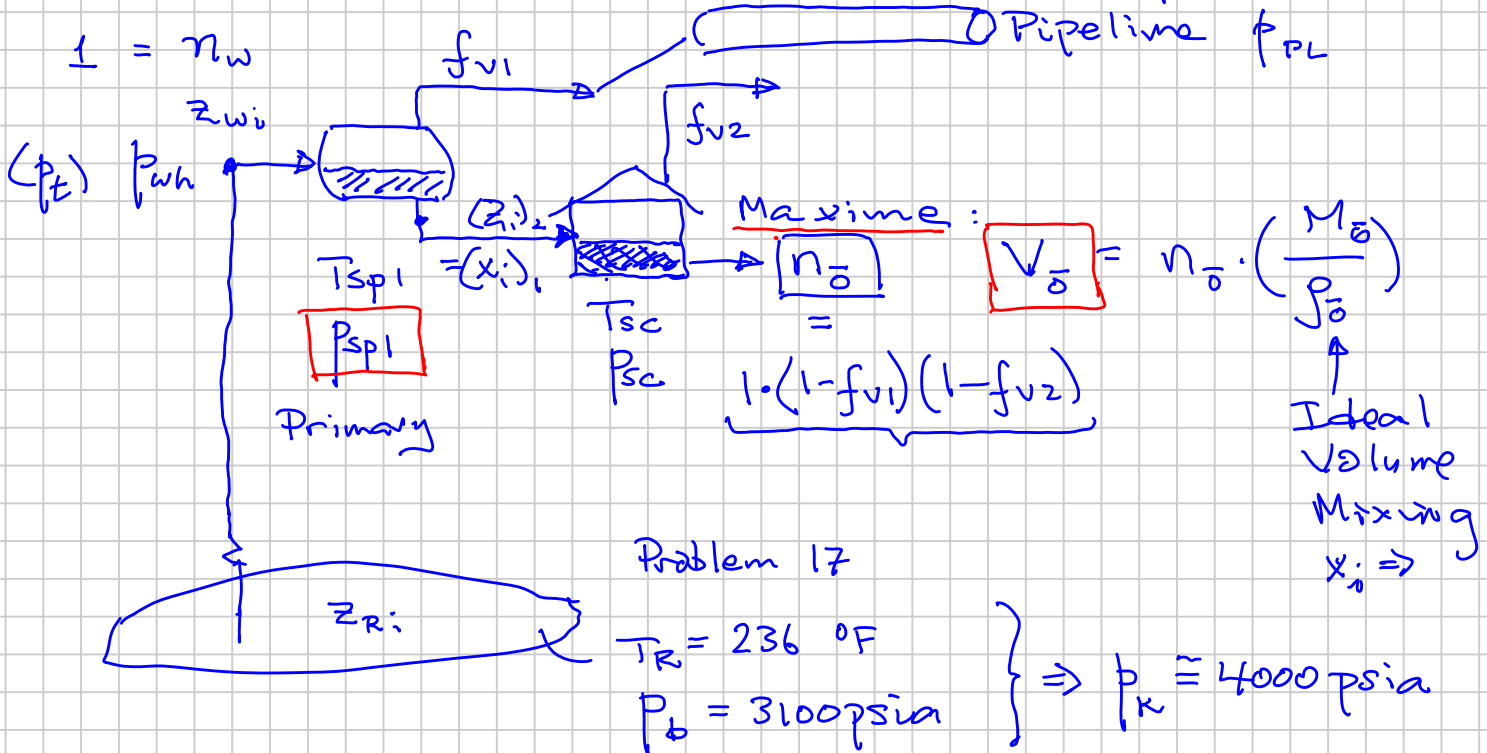


# SEPARATOR OPTIMIZATION (e.g. 2-stage process)



$(K_i)(p_{spi}, T_{spi}, p_k, \theta_i)$

Use this for both reservoir & surface process calcs

RR | MM:  $\frac{1}{1-K_{max}} = f_{vmin} \leq f_v \leq f_{vmax} = \frac{1}{1-K_{min}}$

Convert STO moles ( $n_0$ ) to volume using Ideal Volume Mixing and STO composition  $(x_i)_2$

Single Stage Flash will always be the worst for maximizing STD production

① Low  $p$  (1 atm)

$$\frac{y_i}{x_i} = \underset{\substack{\text{C}_3\text{-C}_7 \\ \text{arrow}}}{k_i} = \frac{P_{vi}(T)}{p}$$

②  $f_{ul}$  max

max "loss" of  
 $i \in \{C_3 \dots C_7\}$   
into the gas  
 $\Rightarrow V_g$  smallest

$$\left\{ \begin{array}{l} f_{v1}, f_{v2} \rightarrow 0 \\ \min (f_{v1}^2 + f_{v2}^2)^{1/2} \rightarrow 0 \end{array} \right\} \rightarrow \text{Constraints}$$

max  $V_0$  use as target objective