

ORIGIN := 1

$$\Lambda(T) := \begin{pmatrix} 1 & \exp\left(1.70016 - \frac{728.735}{T}\right) & \exp\left(2.17687 - \frac{839.958}{T}\right) \\ \exp\left(-1.03432 + \frac{155.701}{T}\right) & 1 & \exp\left(0.05676 - \frac{314.903}{T}\right) \\ \exp\left(-0.86126 + \frac{195.303}{T}\right) & \exp\left(3.58544 - \frac{1774.377}{T}\right) & 1 \end{pmatrix}$$

$$Pvap(T) := \begin{pmatrix} \exp\left(14.005 - \frac{3104.454}{T - 69.962}\right) \\ \exp\left(13.8546 - \frac{3224.816}{T - 74.824}\right) \\ \exp\left(13.7219 - \frac{2778.058}{T - 128.724}\right) \end{pmatrix} \quad x := \begin{pmatrix} 0.128 \\ 0.256 \\ 0.616 \end{pmatrix}$$

k := 3

i := 1 .. k j := 1 .. k ~~m~~ := 1 .. k

~~T~~ := 408.88 P := 80

$$\gamma_i := \exp\left[1 - \ln\left[\sum_j (\Lambda(T)_{i,j} \cdot x_j)\right] - \sum_m \left[\frac{\Lambda(T)_{m,i} \cdot x_m}{\sum_j (\Lambda(T)_{m,j} \cdot x_j)}\right]\right]$$

$$\gamma = \begin{pmatrix} 1.103 \\ 1.818 \\ 1.115 \end{pmatrix}$$

$$y_i := \frac{\gamma_i \cdot x_i \cdot Pvap(T)_i}{P}$$

$$y = \begin{pmatrix} 0.224 \\ 0.388 \\ 0.386 \end{pmatrix}$$