

CHEG325 Homework 1 Volterra Bullshit

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Starting with this equation

$$x_1 \left(\frac{\partial \bar{\theta}_1}{\partial x_1} \right)_{T,P} + x_2 \left(\frac{\partial \bar{\theta}_2}{\partial x_1} \right)_{T,P} = 0 \quad (8.2-19b)$$

and now recalling and rearranging the definition of the beloved volterra derivative

$$\left(\frac{\partial \bar{\theta}_i}{\partial x_i} \right)_{T,P} = \left(\frac{\delta \bar{\theta}_i}{\delta x_i} \right)_{T,P} + \frac{1}{C} \sum_{j=1}^C \left(\frac{\partial \bar{\theta}_i}{\partial x_j} \right)_{T,P} \quad \text{volterra def}$$

now, to attain the greatness and love and support of sir lord beris we shove that right into (8.2-19b),

$$x_1 \left(\left(\frac{\delta \bar{\theta}_1}{\delta x_1} \right)_{T,P} + \frac{1}{2} \right)$$