ChE 436 Notes on Q5.1 and Q5.2

On Q5.1 and Q5.2, please do not re-compute the values of K_p , τ_p , and θ_p . Use the values and conditions for steady-state from Q3.1 and Q3.2, respectively. See the answer key if your answers were wrong.

For Q3.1, in the range near the level of 3.0 m,

$$\begin{split} K_p &= 0.107 \text{ m} / \% \\ \tau_p &= 1.53 \text{ min} \\ \theta_p &= 0.59 \text{ min} \end{split}$$

For Q3.2, in the range near the exit temperature of 133°C,

 $K_p = -0.344 \text{ °C} /\%$ $\tau_p = 0.918 \text{ min}$ $\theta_p = 0.86 \text{ min}$