

$$U = \begin{cases} 0 & t < 0 \\ 3 & t \in [0, 4) \\ 7-t & t \in [4, 7) \\ 0 & t \geq 7 \end{cases}$$

$$\begin{cases} U_1(t) = 3 \cdot \mathbb{1}(t) \\ U_2(t) = -(t-4) \cdot \mathbb{1}(t-4) \\ U_3(t) = (t-7) \cdot \mathbb{1}(t-7) \end{cases}$$

$$\begin{aligned} \Rightarrow U_1(s) &= 3 \cdot \frac{1}{s} \\ \Rightarrow U_2(s) &= -\frac{1}{s^2} \cdot e^{-4s} \\ \Rightarrow U_3(s) &= \frac{1}{s^2} \cdot e^{-7s} \end{aligned}$$

