

rechnung_signalzeitverlauf_umkehrintegrator

Student Group

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Am Punkt t_1

$U_A(t_1) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E \, dt + U_A(t_0)$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} 1V \, dt + 0V$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} 1V \, dt + 0V = -2V$	

Am Punkt t_2

$U_A(t_1) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E \, dt + U_A(t_0)$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} (-1V) \, dt + 0V = 2V$	

Am Punkt t_3

$U_A(t_1) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E \, dt + U_A(t_0)$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} (-2V) \, dt + 0V = -2V$	

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