

rechnung_signalzeitverlauf_umkehrintegrator

Student Group

First Name	Surname	Matrikel Nr.

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\$I.\quad\$ Am Punkt \$t_1\$

$U_A(t_1) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E dt + U_A(t_0)$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} 1V dt + 0V$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \cdot 1V \cdot [t_1 - t_0] + 0V$	
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\$I.\quad\$ Am Punkt \$t_2\$

$U_A(t_2) = -\frac{1}{\tau} \int_{t_0}^{t_2} U_E dt + U_A(t_0)$	
$U_A(t_2) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_2} (-1V) dt + 0V$	
$U_A(t_2) = -\frac{1}{5 \text{ ms}} \cdot (-1V) \cdot [t_2 - t_0] + 0V$	
$U_A(t_2) = -\frac{1}{5 \text{ ms}} \cdot (-1V) \cdot [t_2 - t_0] + 0V$	

\$I.\quad\$ Am Punkt \$t_3\$

$U_A(t_3) = -\frac{1}{\tau} \int_{t_0}^{t_3} U_E dt + U_A(t_0)$	
$U_A(t_3) = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_3} (-2V) dt + 0V$	
$U_A(t_3) = -\frac{1}{5 \text{ ms}} \cdot (-2V) \cdot [t_3 - t_0] + 0V$	
$U_A(t_3) = -\frac{1}{5 \text{ ms}} \cdot (-2V) \cdot [t_3 - t_0] + 0V$	

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