

rechnung_signalzeitverlauf_umkehrintegrator

Student Group

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At the point t_1

$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{\tau} \int_{t_0}^{t_1} U_{\{O\}}(t) dt + U_{\{O\}}(t_0)$	
$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} 1V dt + 0V$	
$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} 1V dt + 0V = -2V$	

At the point t_2

$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{\tau} \int_{t_0}^{t_1} U_{\{O\}}(t) dt + U_{\{O\}}(t_0)$	
$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} (-1V) dt + 0V = -2V$	

At the point t_3

$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{\tau} \int_{t_0}^{t_1} U_{\{O\}}(t) dt + U_{\{O\}}(t_0)$	
$U_{\{O\}}(t_1) \setminus \setminus = -\frac{1}{5 \text{ ms}} \int_{t_0}^{t_1} (-2V) dt + 0V = -2V$	

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