

rechnung_signalzeitverlauf_umkehrintegrator

Student Group

First Name	Surname	Matrikel Nr.

Table of Contents

At the point t_1

$U_A(t_1) - U_A(t_0) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E dt$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{0}^{10 \text{ ms}} 1V dt + 0V$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{0}^{10 \text{ ms}} 1V dt$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{0}^{10 \text{ ms}} 1V dt = -2V$	

At the point t_2

$U_A(t_1) - U_A(t_0) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E dt$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{10 \text{ ms}}^{20 \text{ ms}} (-1V) dt + 2V = 0V$	

At the point t_3

$U_A(t_1) - U_A(t_0) = -\frac{1}{\tau} \int_{t_0}^{t_1} U_E dt$	
$U_A(t_1) = -\frac{1}{5 \text{ ms}} \int_{10 \text{ ms}}^{20 \text{ ms}} (-2V) dt + 0V = -2V$	

From: <https://mexle.te.hs-heilbronn.de/> - MEXLE Wiki

Permanent link: https://mexle.te.hs-heilbronn.de/circuit_design/rechnung_signalzeitverlauf_umkehrintegrator?rev=1641769891

Last update: 2022/01/10 00:11

