

rechnung_umkehrintegrator

Student Group

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$U_A = f(U_E)$	mit III.	
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_D = \frac{1}{A_D} \int U_A dt \rightarrow \infty$
$U_A = U_D - U_C$	mit II. und I.	$U_D = \frac{1}{C} \int U_A dt + U_C(t_0)$
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{1}{C} \int U_A dt + U_C(t_0)$
$U_A = 0 - U_C$	mit V.	$U_C = \frac{1}{C} \int U_A dt + U_C(t_0)$
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = I_R$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$	mit IV.	$U_C = I_R$
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = I_R$
$U_A = \frac{1}{C} \int U_C dt + U_C(t_0)$	Ausklammern	
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$	Integrationskonstante betrachten	$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$	mit VI. und II.	$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$	Konstante vorziehen	
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$	Zeitkonstante $\tau = R \cdot C$ einfügen	
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$
$U_A = -\frac{1}{C} \int U_C dt + U_C(t_0)$		
$\frac{1}{C} \int U_A dt = \frac{1}{C} \int U_E dt$		$U_C = \frac{U_C(t_0)}{C} = U_C(t_0) = -U_{A0}$

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