$$\begin{cases} \dfrac{d\left(U_{C1}\right)}{dt} = \dfrac{U_{max} \times \sin\left(2\pi f t\right) - U_{C1} - U_{C2}}{R_1 \times C_1} \\[2ex] \dfrac{d\left(U_{C2}\right)}{dt} = \dfrac{U_{max} \times \sin\left(2\pi f t\right) - U_{C1} - U_{C2} - i_L \times R_1}{R_1 \times C_2} \\[2ex] \dfrac{d\left(i_L\right)}{dt} = \dfrac{U_{C2} - i_L \times R_2}{L} \end{cases}$$

$$U_2 = U_{C2} - i_L \times R2$$

$$value[0] = U_{C1}$$
$$value[1] = U_{C2}$$
$$value[2] = i_L$$