

Berejinec Adrian-Daniel
1-1

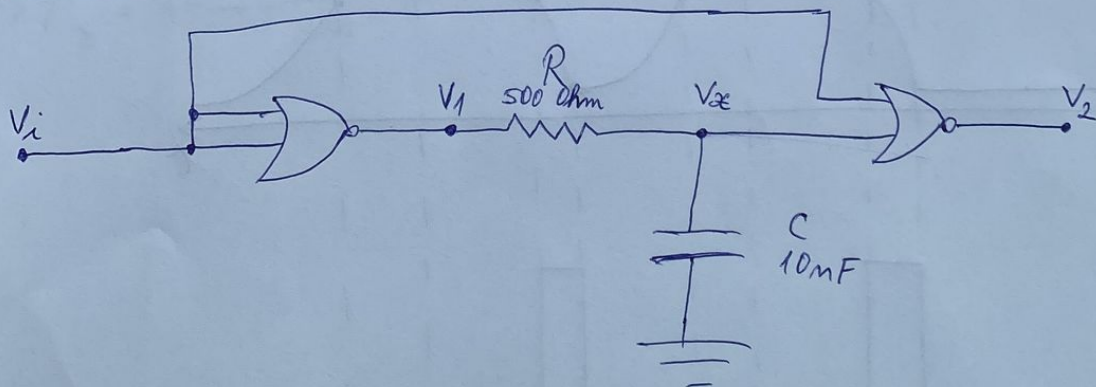
Aplicatia 8 CD

Tabel de adevăr :

SAU - NU

A	B	Rezultat
0	0	1
0	1	0
1	0	0
1	1	0

Schema :



$$V_H = 3,5 \text{ V}$$

$$R = 500 \Omega$$

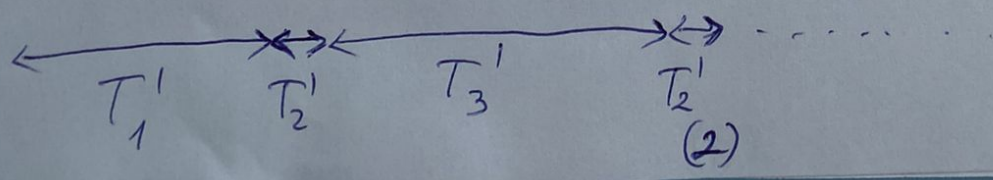
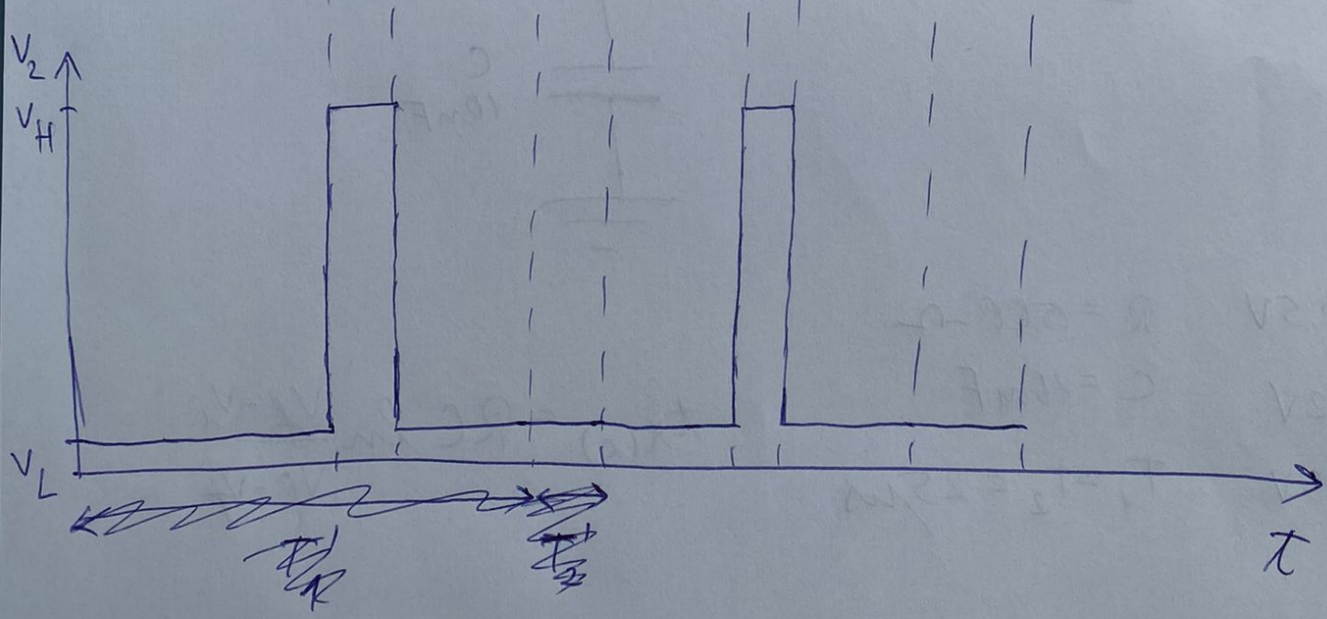
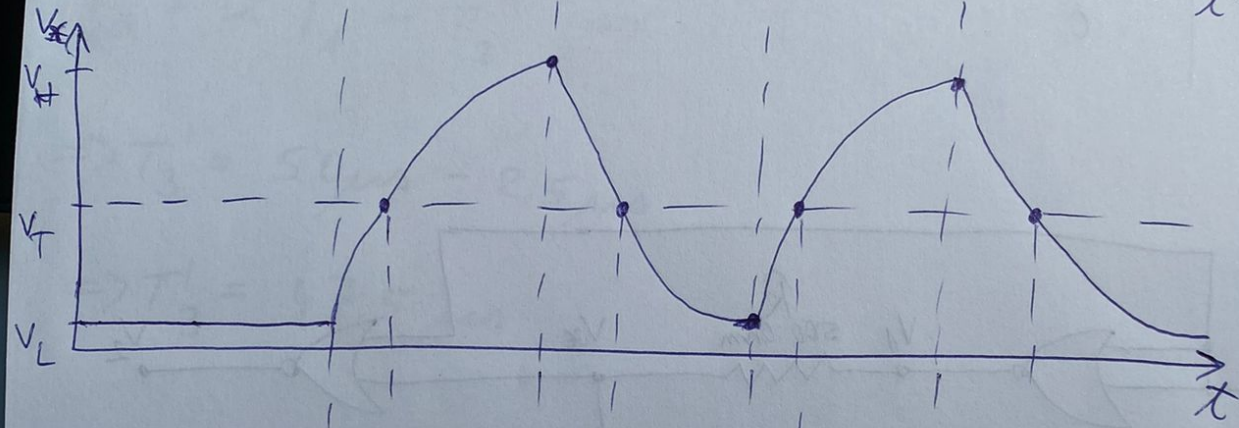
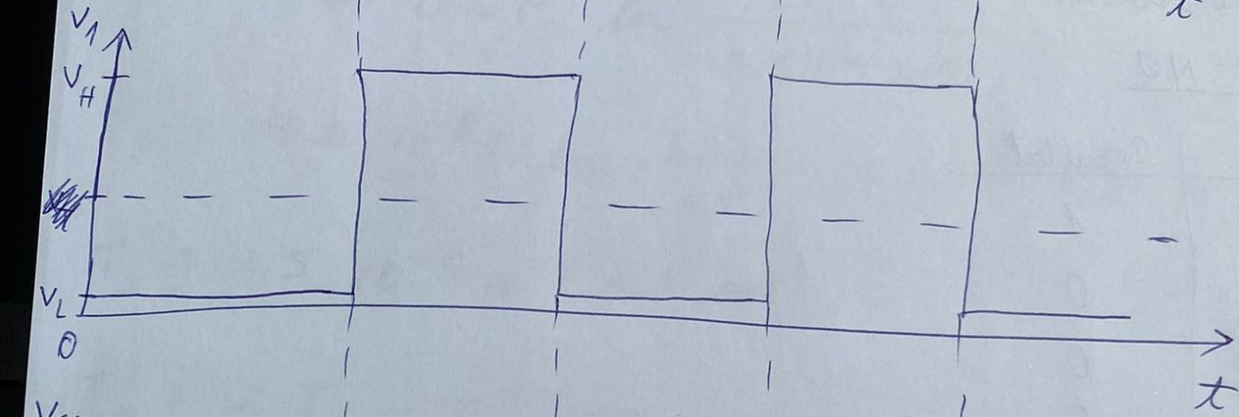
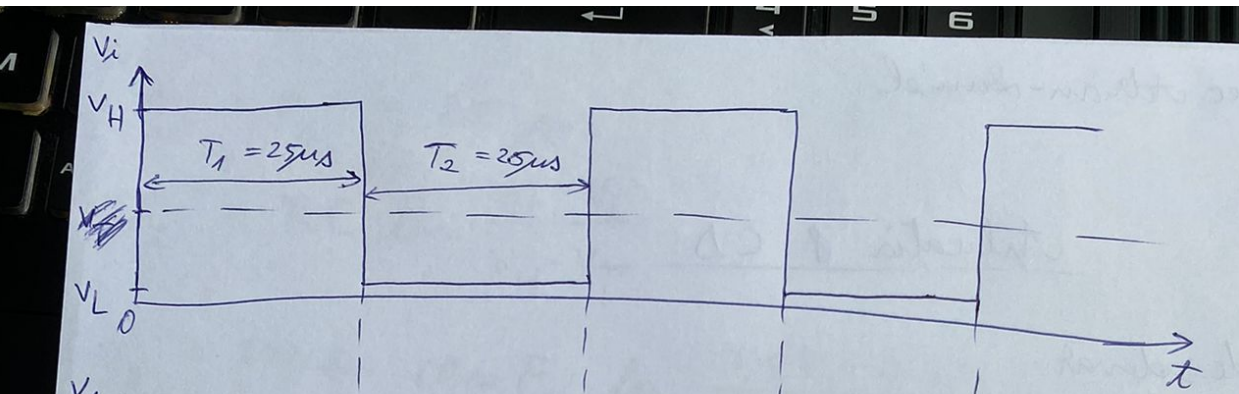
$$V_L = 0,2 \text{ V}$$

$$C = 10 \text{ mF}$$

$$V_T = 1,5 \text{ V}$$

$$T_1 = T_2 = 25 \mu\text{s}$$

$$t_{R(x)} = RC \ln \frac{V_f - V_i}{V_f - V_T}$$



(2)

$$T_1' = T_1 = 25 \mu s$$

$$T_2' = RC \ln \frac{V_H - V_L}{V_H - V_T}$$

$$T_2' = 500 \Omega \cdot 10 \text{ nF} \cdot \ln \frac{3,5 \text{ V} - 0,2 \text{ V}}{3,5 \text{ V} - 1,5 \text{ V}}$$

$$T_2' = 500 \Omega \cdot 10^{-8} \text{ F} \cdot \ln \frac{3,3 \text{ V}}{2 \text{ V}} = 5 \cdot 10^{-6} \cdot 0,5 \text{ s}$$

$$T_2' = 2,5 \cdot 10^{-6} \text{ s} = 2,5 \mu s$$

$$T_3' = 2 \cdot T_1 - T_2' \Rightarrow$$

$$\Rightarrow T_3' = 50 \mu s - 2,5 \mu s$$

$$\Rightarrow T_3' = 47,5 \mu s$$