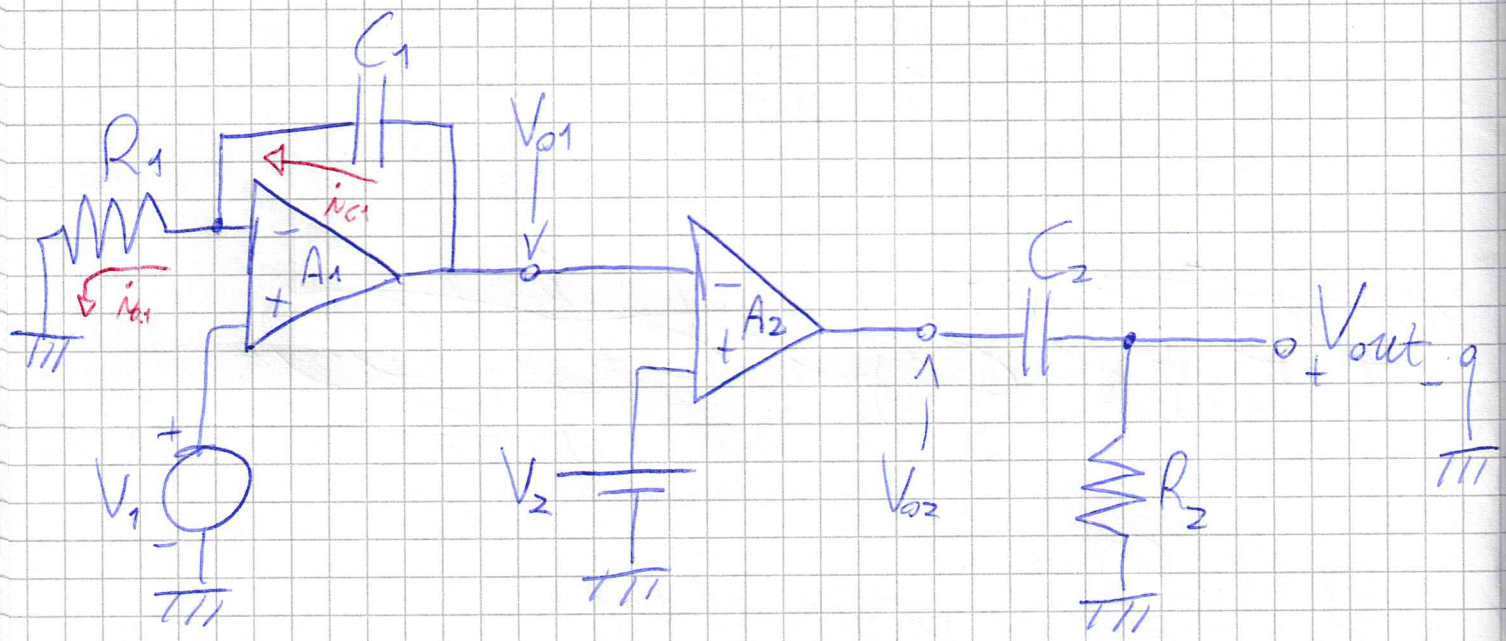
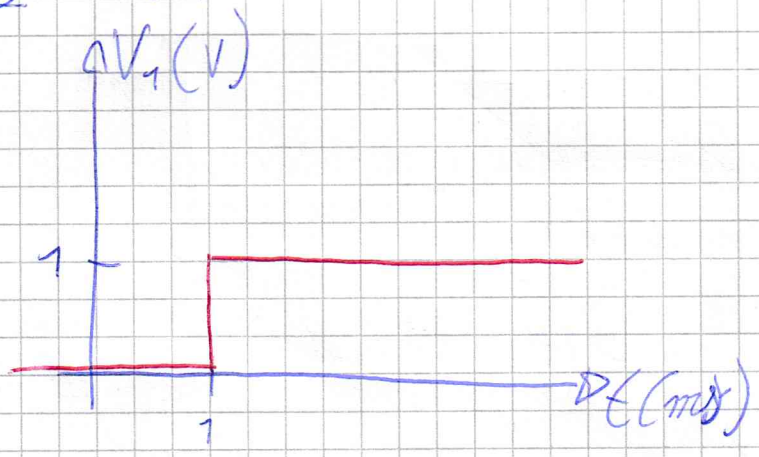
ESERCIZIO



$L^+ = |L^-| = 5V$

$R_1 = 100K\Omega \quad R_2 = 20K\Omega \quad V_2 = 4V \quad C_1 = 10nF$

$C_2 = 10nF$



$V_{A1}^- = V_{A1}^+ = V_1$

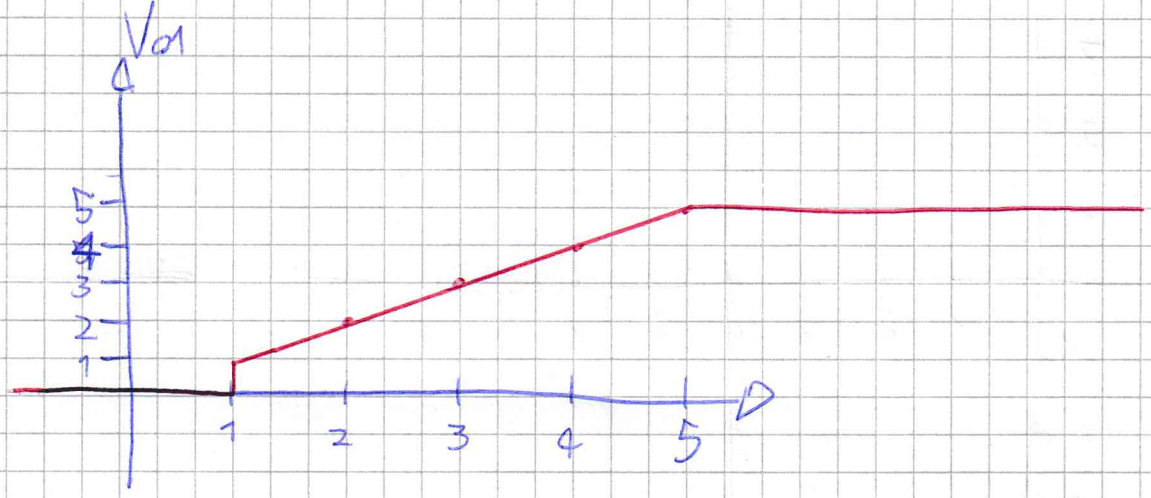
$V_{A1}^- - 0 = i_{R1} R_1 \rightarrow i_{R1} = \frac{V_{A1}^-}{R_1} = \frac{1}{100} V_{o1}$

$V_{o1} - V_{A1}^- = V_C = \frac{\int i_{C1}\, dt}{C_1} = \frac{i_{C1} t}{C_1}$

$$i_{C1} = i_{R1}$$

$$V_{o1} = V_C + V_{A1}^- = \frac{i_{R1}}{C_1} t + V_{A1}^- =$$

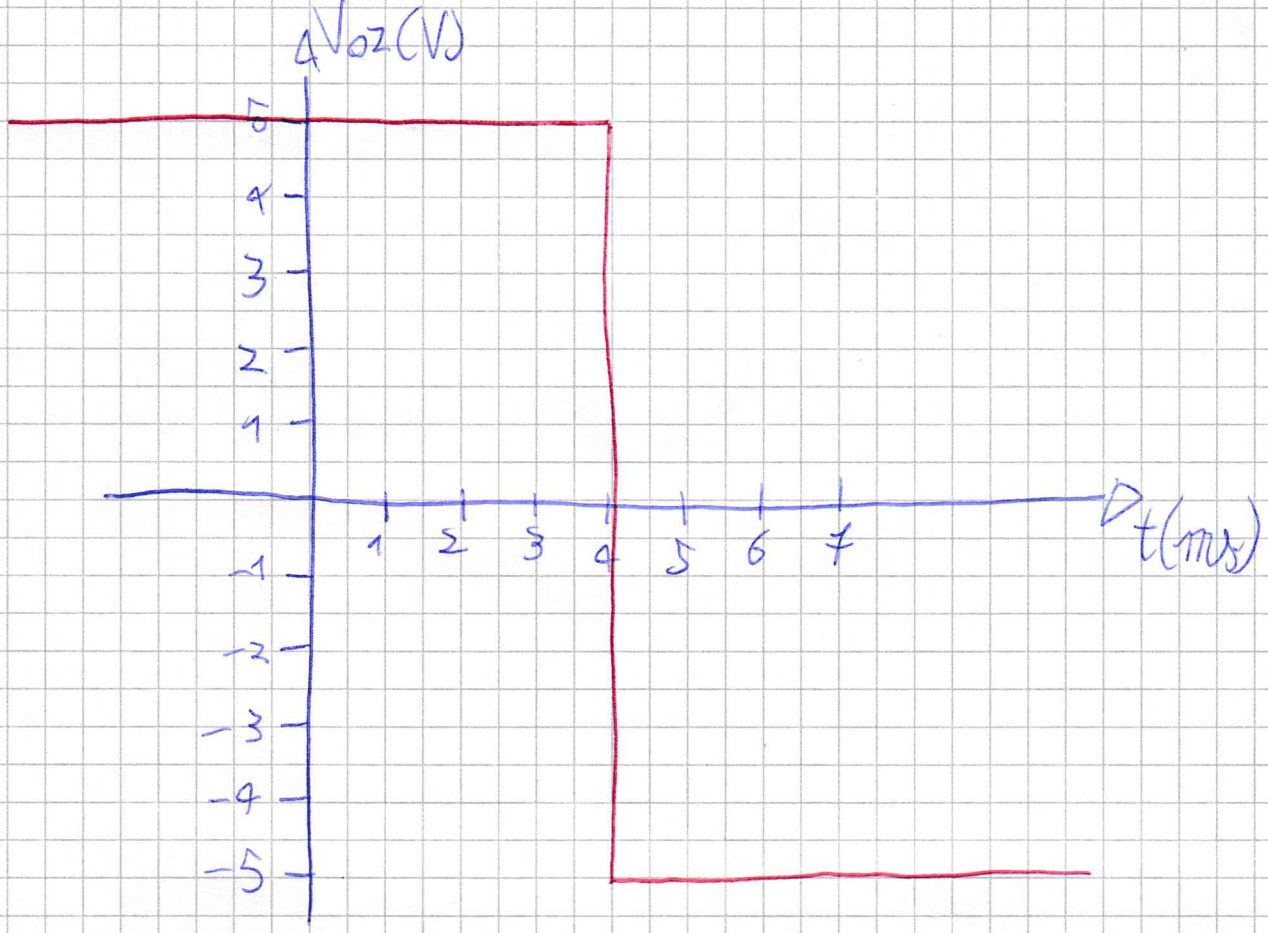
$$V_{o1} = \frac{V_1}{R_1} t + V_1 = V_1 \left(\frac{t}{C_1 R_1} + 1 \right) \cdot \cdot = V_1 + 1 \frac{V}{ms}$$



$$C_1 R_1 = 10 \cdot 10^{-9} \cdot 10^2 \cdot 10^3 = 10^{-3}$$

$$V_{o1} = V_{A2}^-$$

non essendoci un ramo di controreazione in A_2, l'ampl satura



V_{out} è l'uscita di un passa-alto

$\tau = C_2 R_2 = 20 \cdot 10^3 \cdot 10 \cdot 10^{-9} = 200 \cdot 10^{-6} = 0{,}2$ ms