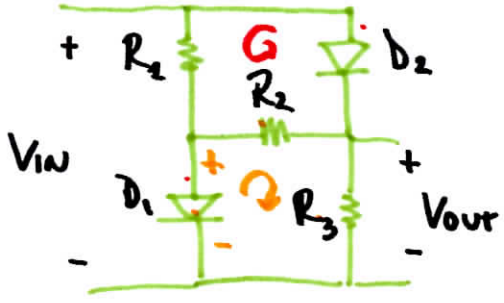
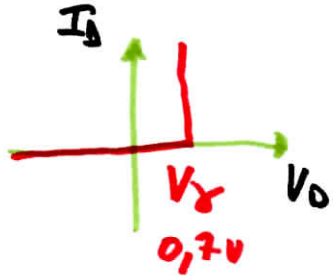
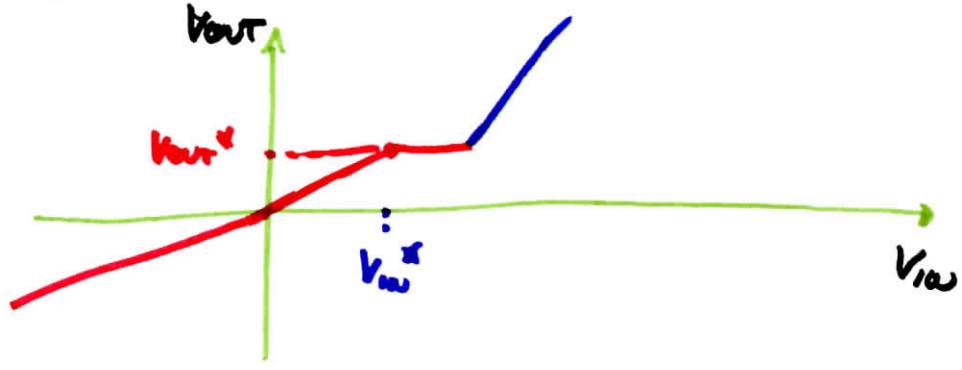
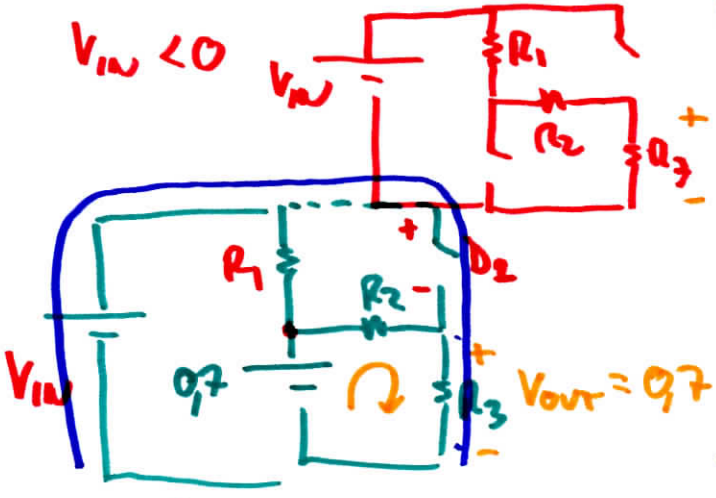
$R_1 = 1k\Omega$ $R_2 = 2k\Omega$ $R_3 = 3k\Omega$







$V_{IN} < 0$



$I = \dfrac{V_{IN}}{R_1+R_2+R_3}$

$V_{OUT} = V_{IN} \dfrac{R_3}{R_1+R_2+R_3}$

$y = x$ rett.

$V_{D2} = V_{R_1} + V_{R_2} = I(R_1+R_2)$

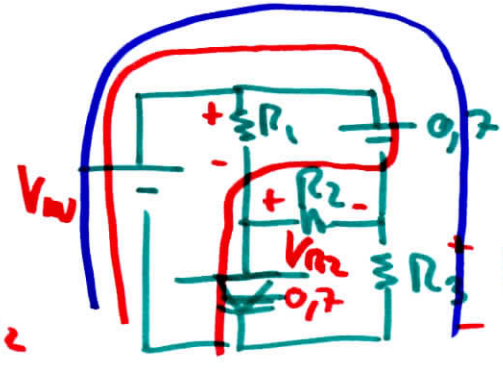
$V_{D1} = V_{R_2} + V_{R_3} = I(R_2+R_3) = 0,7$

$I = \dfrac{V_{IN}}{R_1+R_2+R_3}(R_2+R_3) = 0,7 \Rightarrow V_{IN}^*$

$V_{OUT} = 0,7 \dfrac{R_3}{R_2+R_3} = V_{OUT}^*$

$\begin{cases} V_{IN} - V_{D2} - V_{OUT}^* = 0 \\ V_{D2} = 0,7 \end{cases} \Rightarrow V_{IN}^{**}$

$V_{IN} = 1,4 - V_{R_2}$



$V_{OUT} = V_{IN} - 0,7$