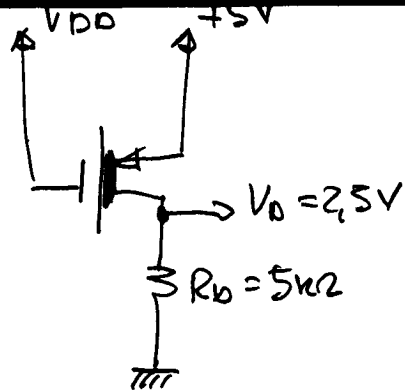
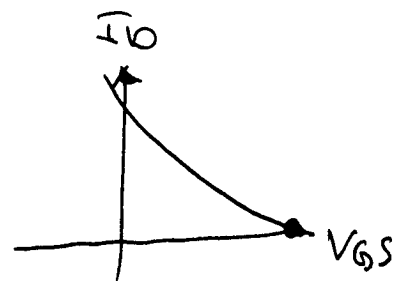




P-MOS depletion

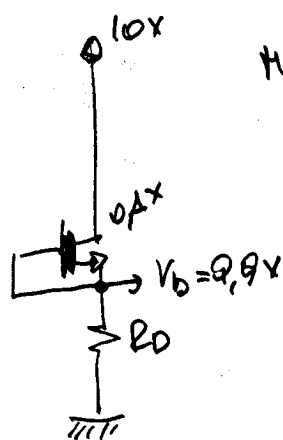
$$V_T = 1V$$

$$k = 0,5 \frac{mA}{V^2}$$

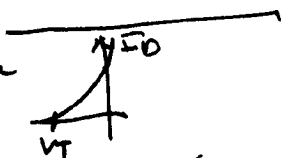


$$\Rightarrow \text{conduce pour } V_{GS} = 0 \Rightarrow I_D = 0,5(0-1)^2 = 0,5mA$$

$$V_O = 0,5mA \cdot 5k\Omega = 2,5V > (V_{GS} - V_T) = -1V$$



N-MOS depletion



après la repaire triode

$$V_{GS} = 0V \Rightarrow V_{DS} = 0,1V$$

$$V_T = -1$$

$$k = 0,5 \frac{mA}{V^2}$$

$$I_D = 0,5 \left[2(0 - (-1)) \times 0,2 - 0,01 \right] = 0,1mA$$

$$R_D = \frac{9,9V}{0,1mA} = 99k\Omega$$

$$V_{DS} = \frac{0,1V}{0,1mA} = 1k\Omega$$