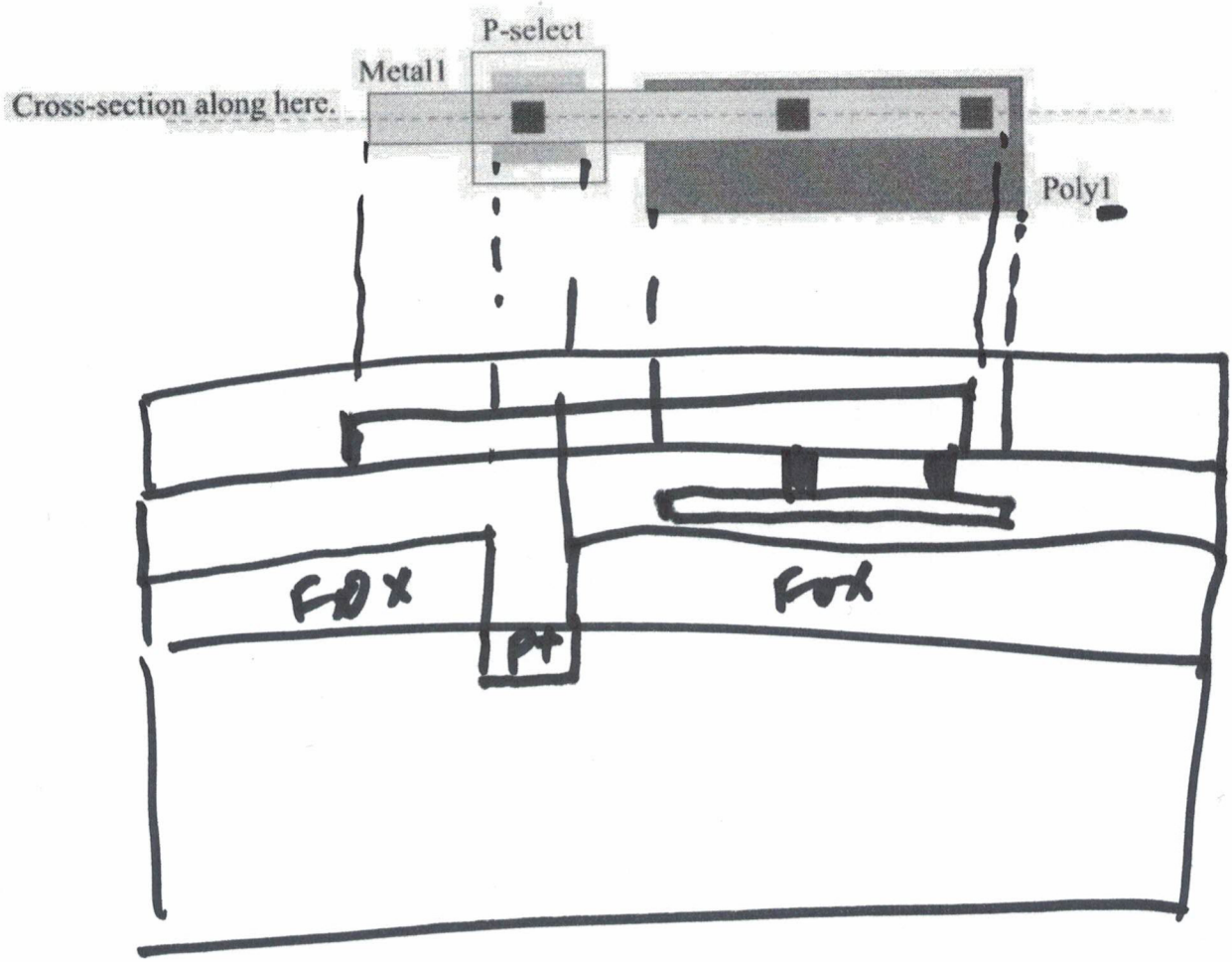
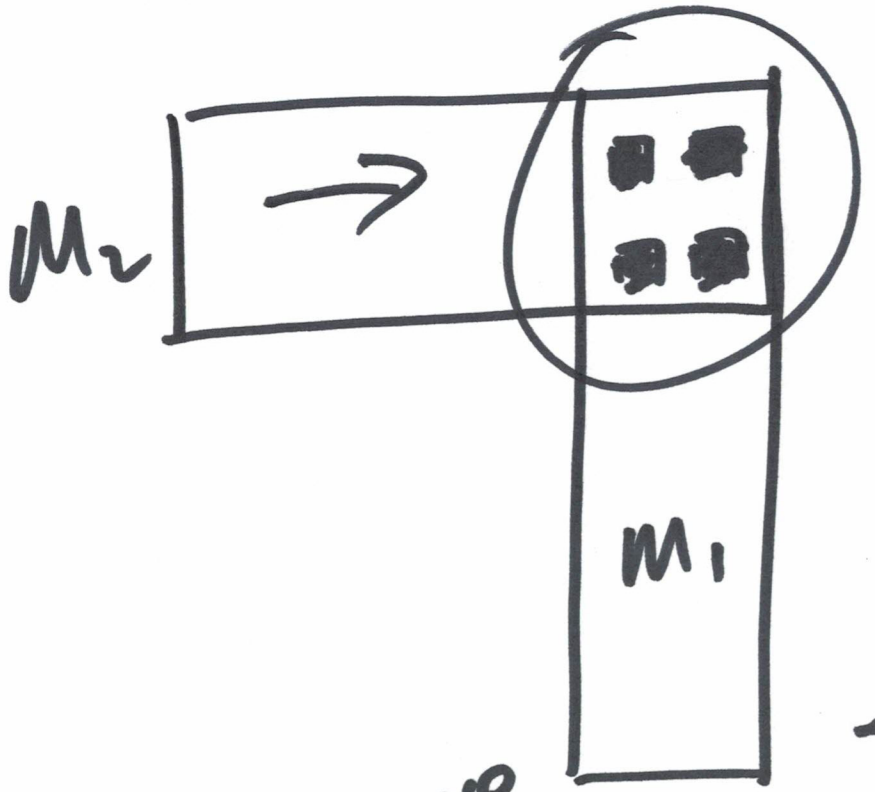
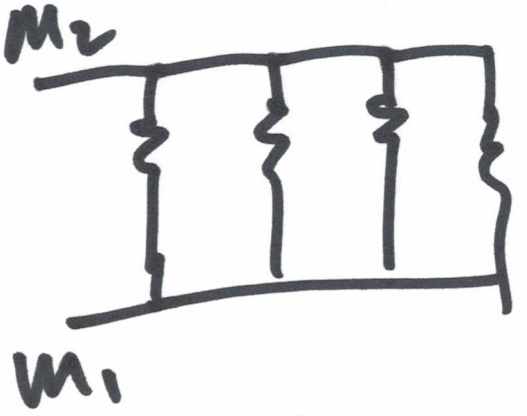
CE338 Quiz 3

1. Sketch the cross-sectional view at the line indicated in the following figure. (20 points)

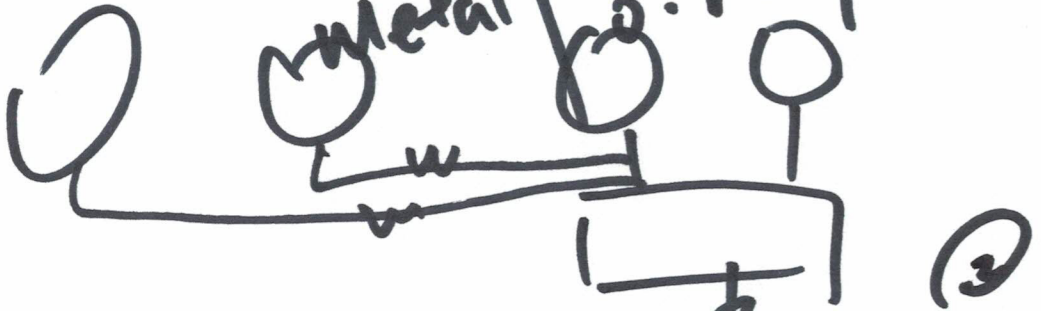


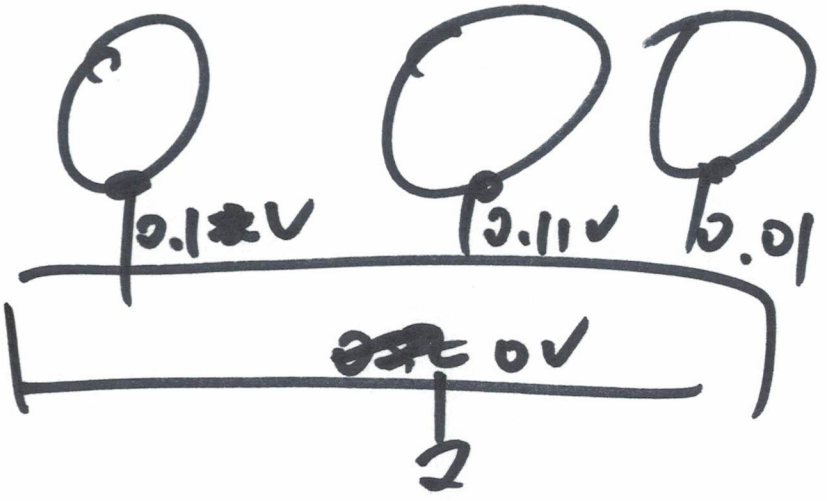


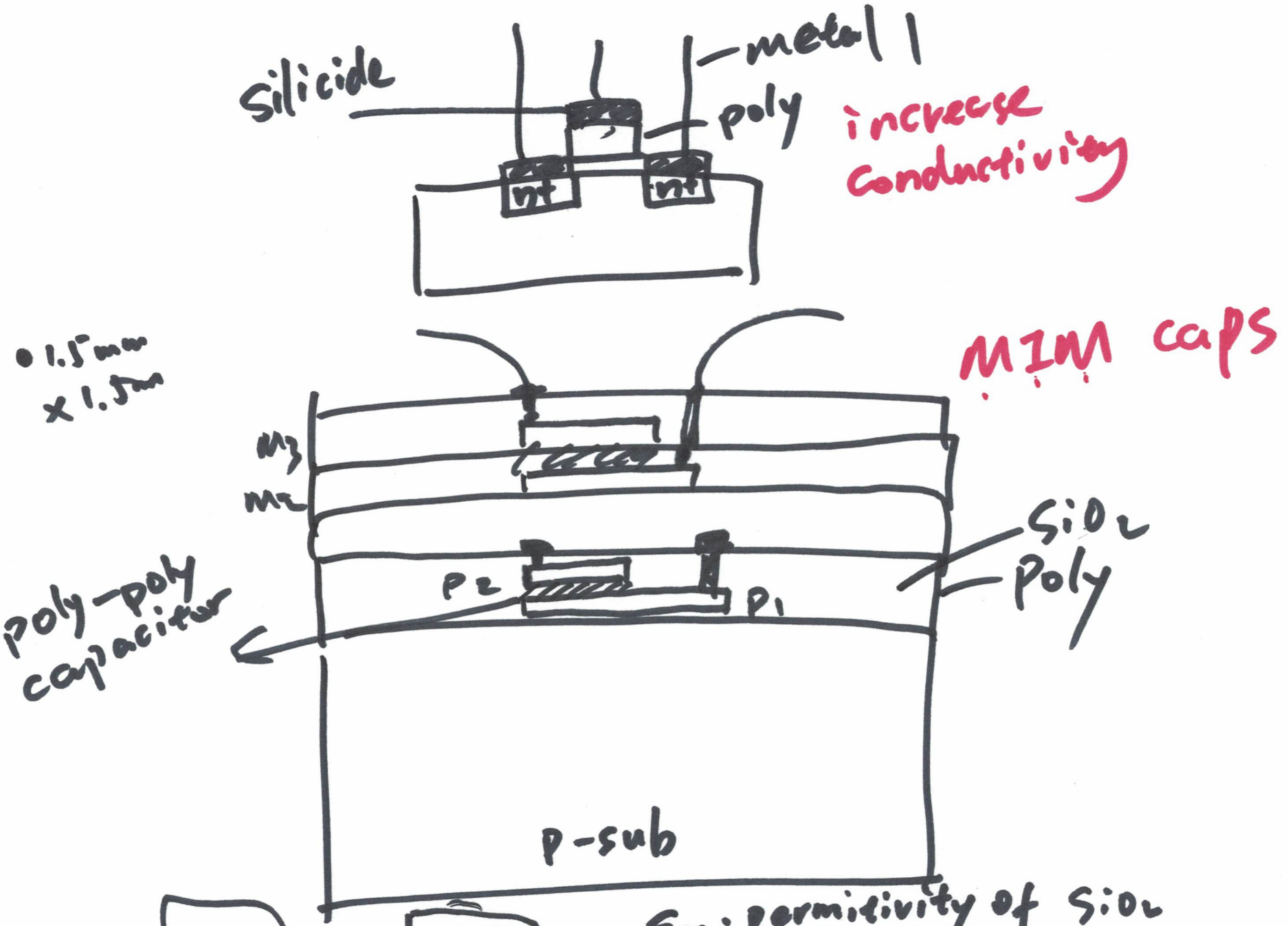


lower resistance
lower current
back up vias

	resistance
poly	200 Ω/□
Metal	0.1 Ω/□





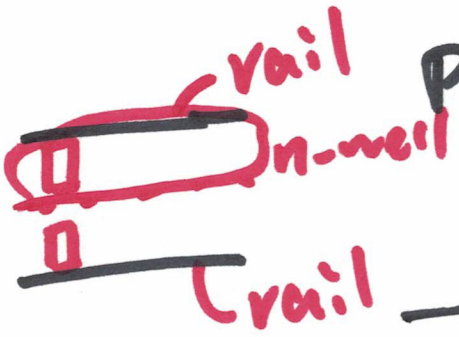


$$C_{ox} = C_{ox}' \cdot A = \frac{\varepsilon_r \varepsilon_0}{t_{ox}} \cdot A$$

ε_r : permitivity of SiO_2

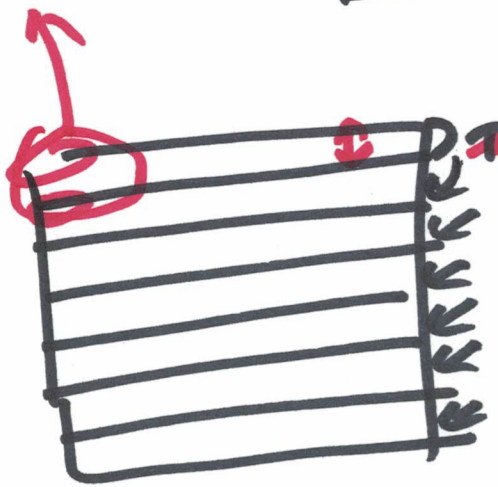
ε_0 : permitivity of vacuum

t_{ox} : thickness of SiO_2



p1-p2 cap

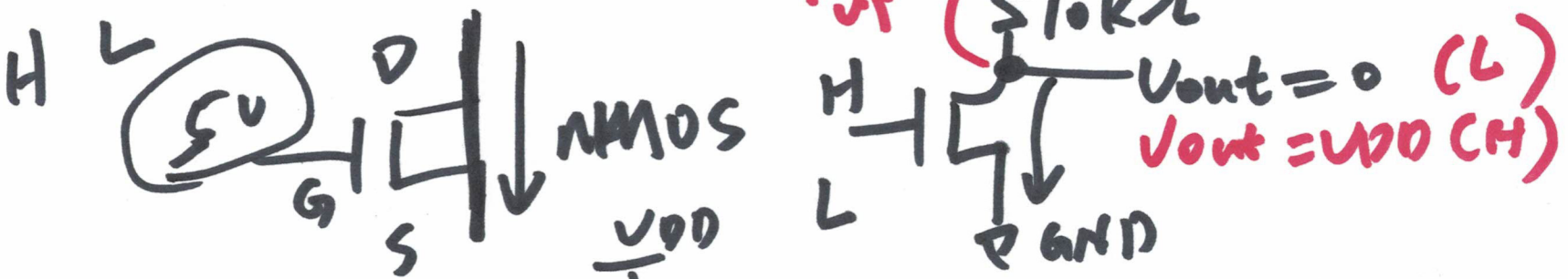
$25fF/\mu m^2$

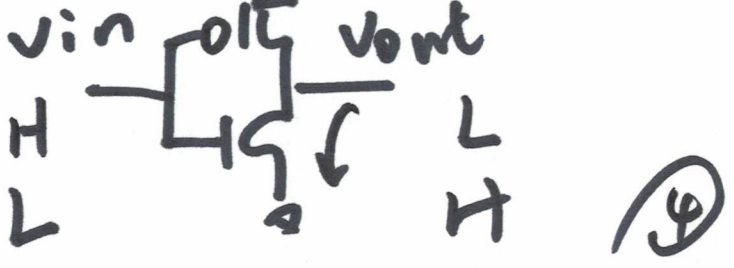


CMOS → Complementary Metal Oxide Semiconductor

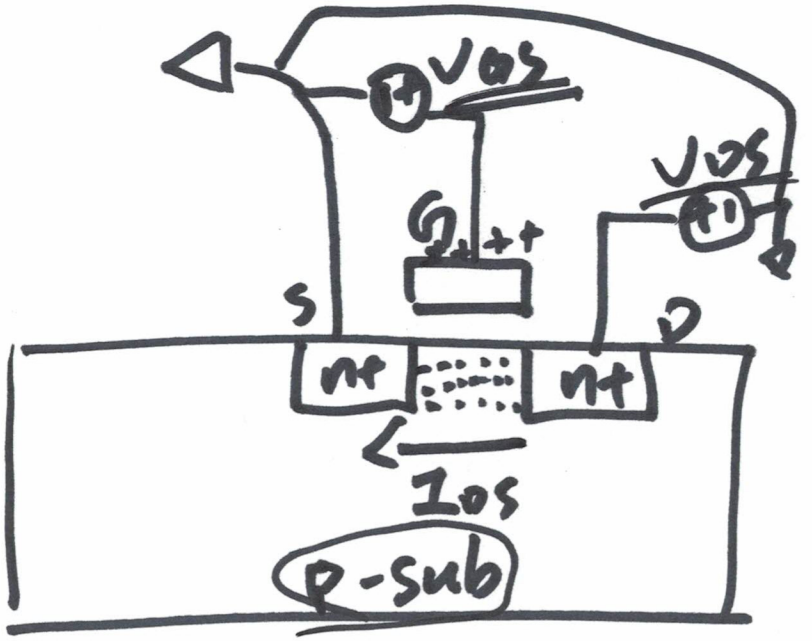
9-track
7-track
12-track

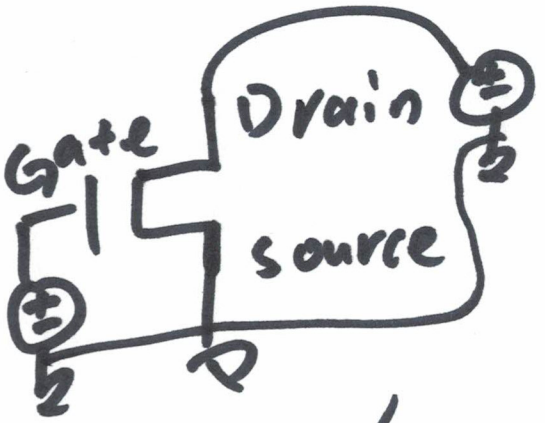
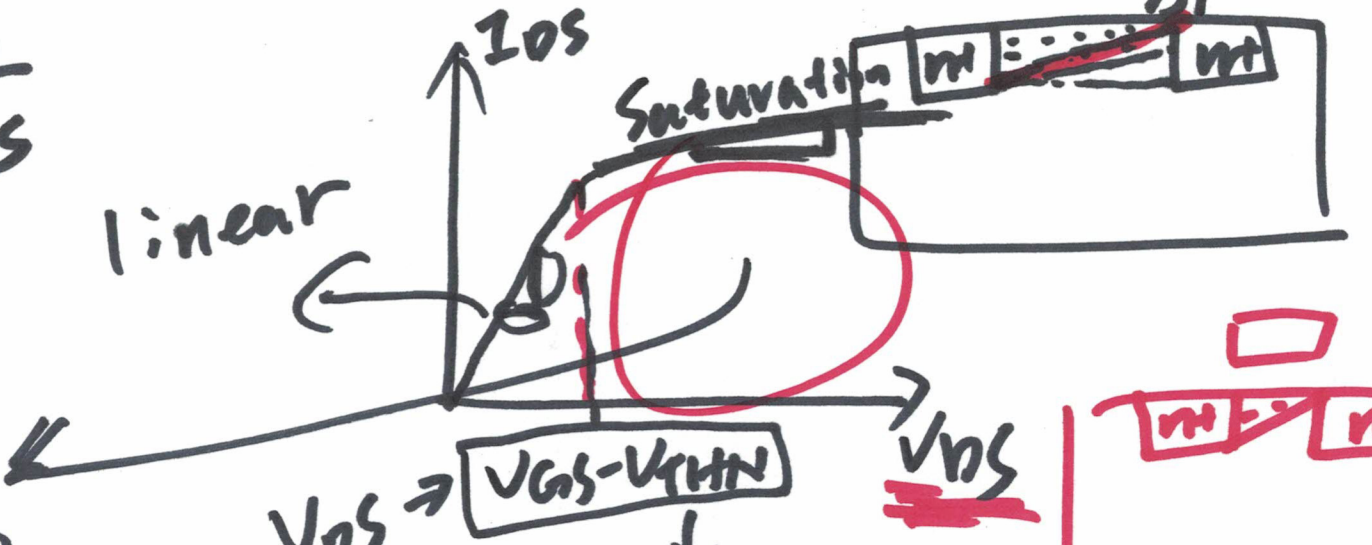
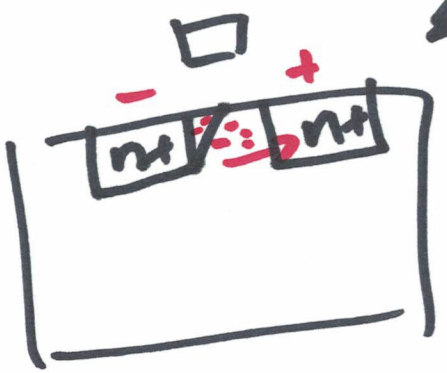
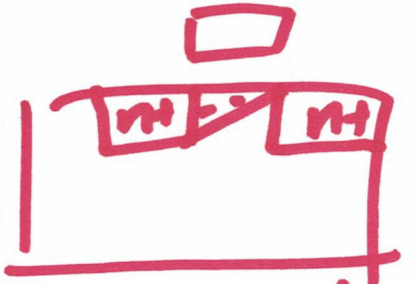
MOSFETs. NMOS PMOS





NMOS





$$R_{channel} = \frac{\Delta V_{DS}}{\Delta I_{DS}}$$