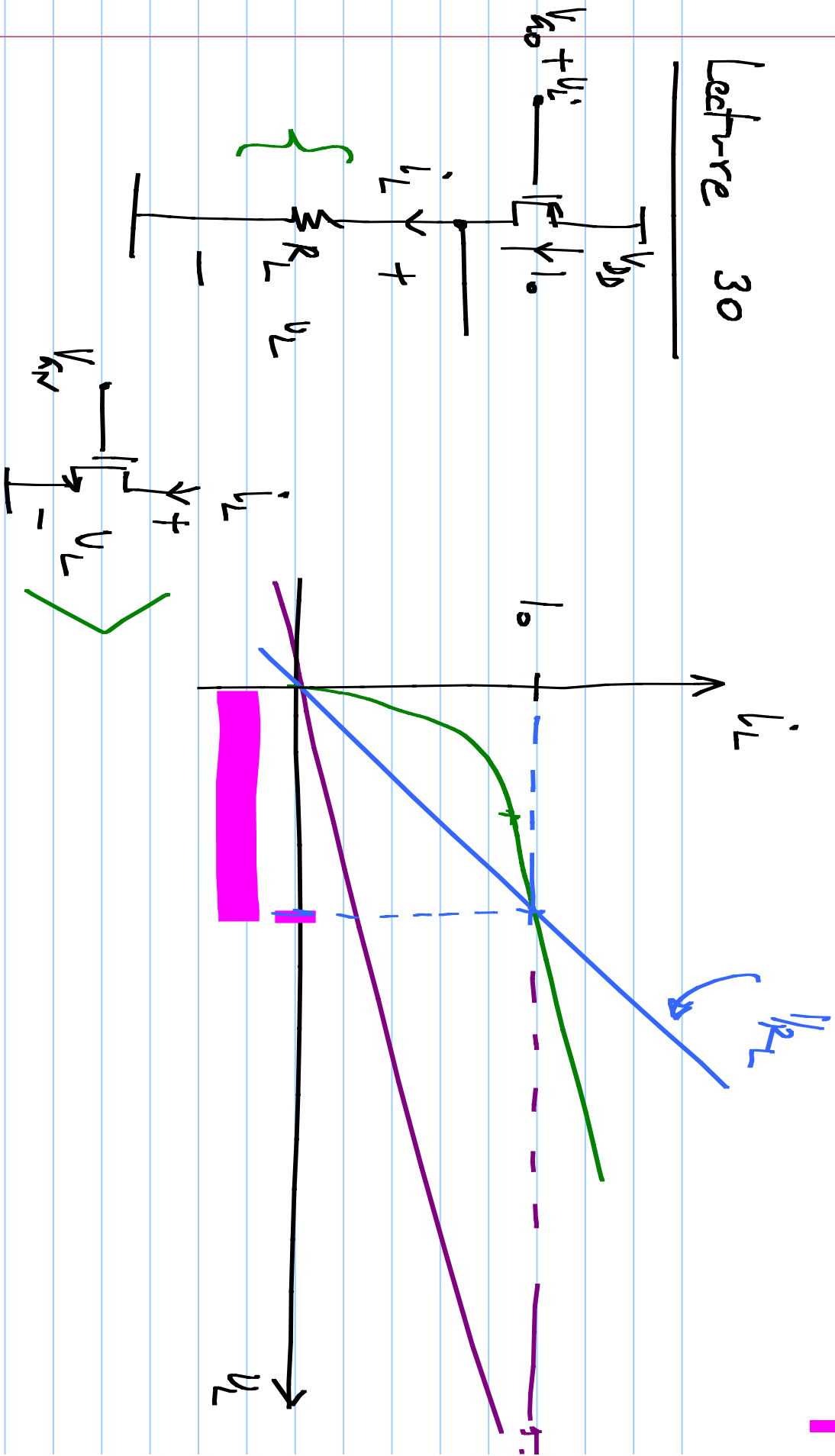
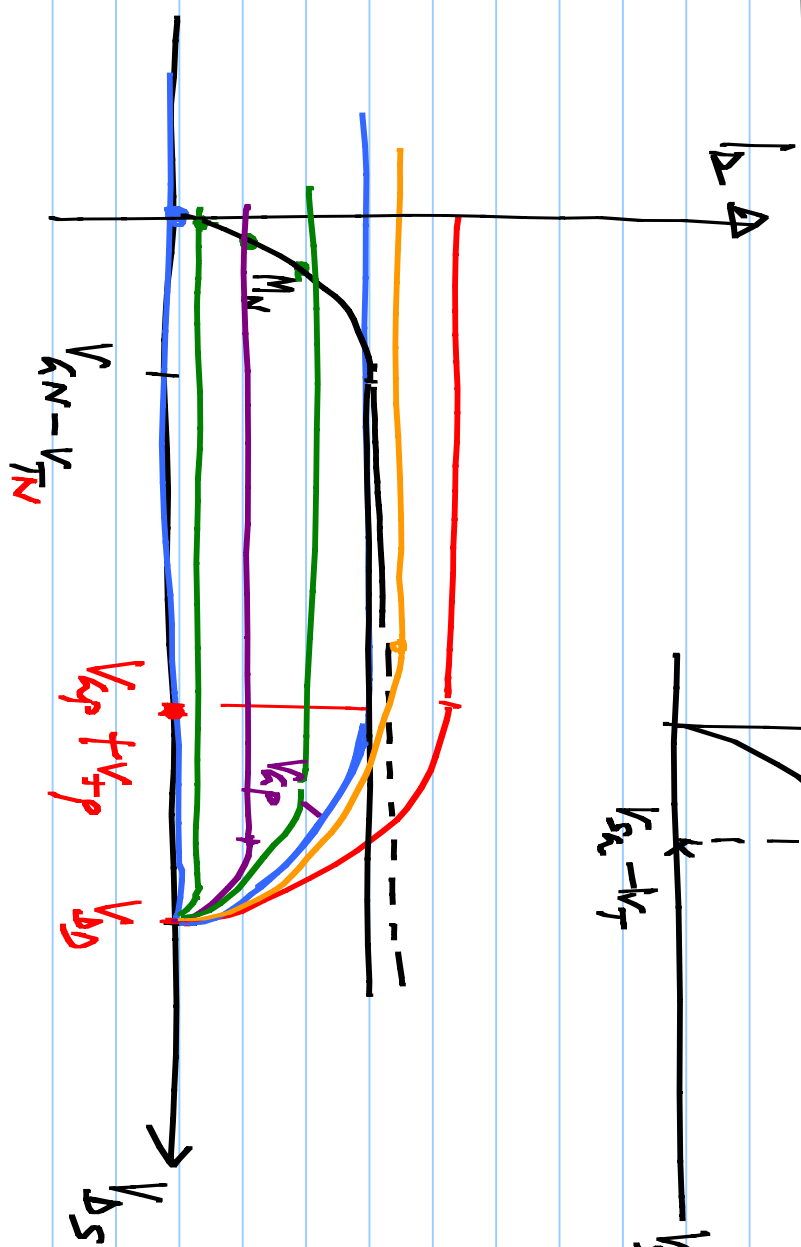
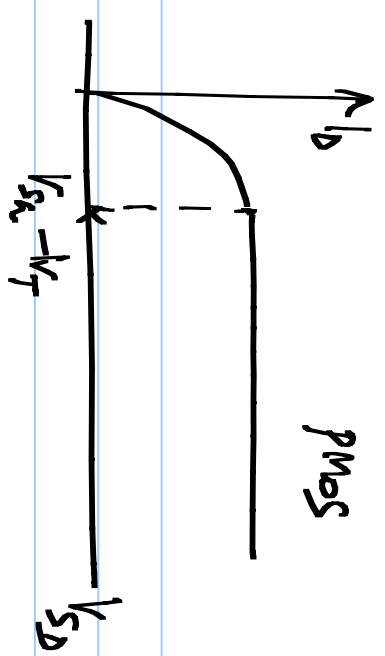
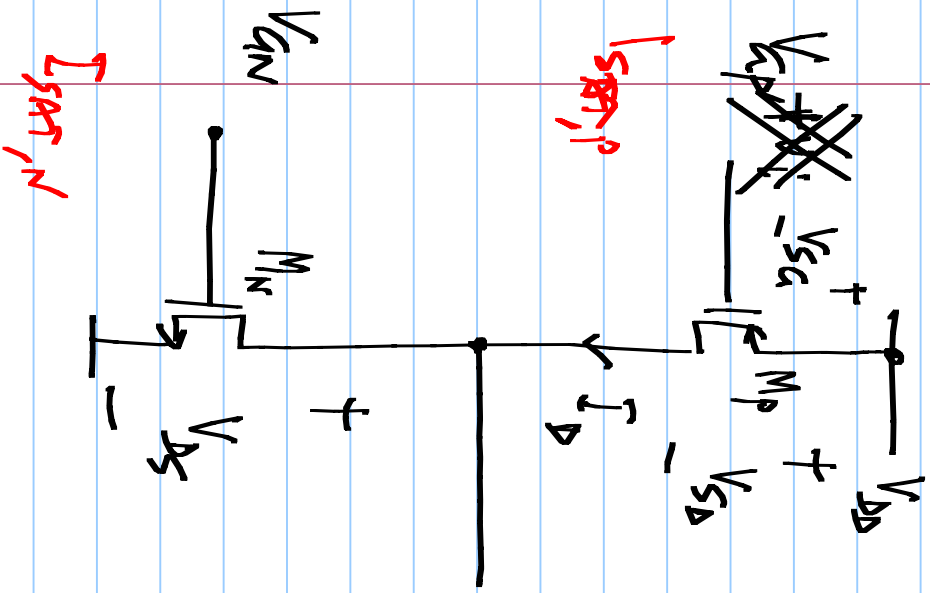


Lecture 30

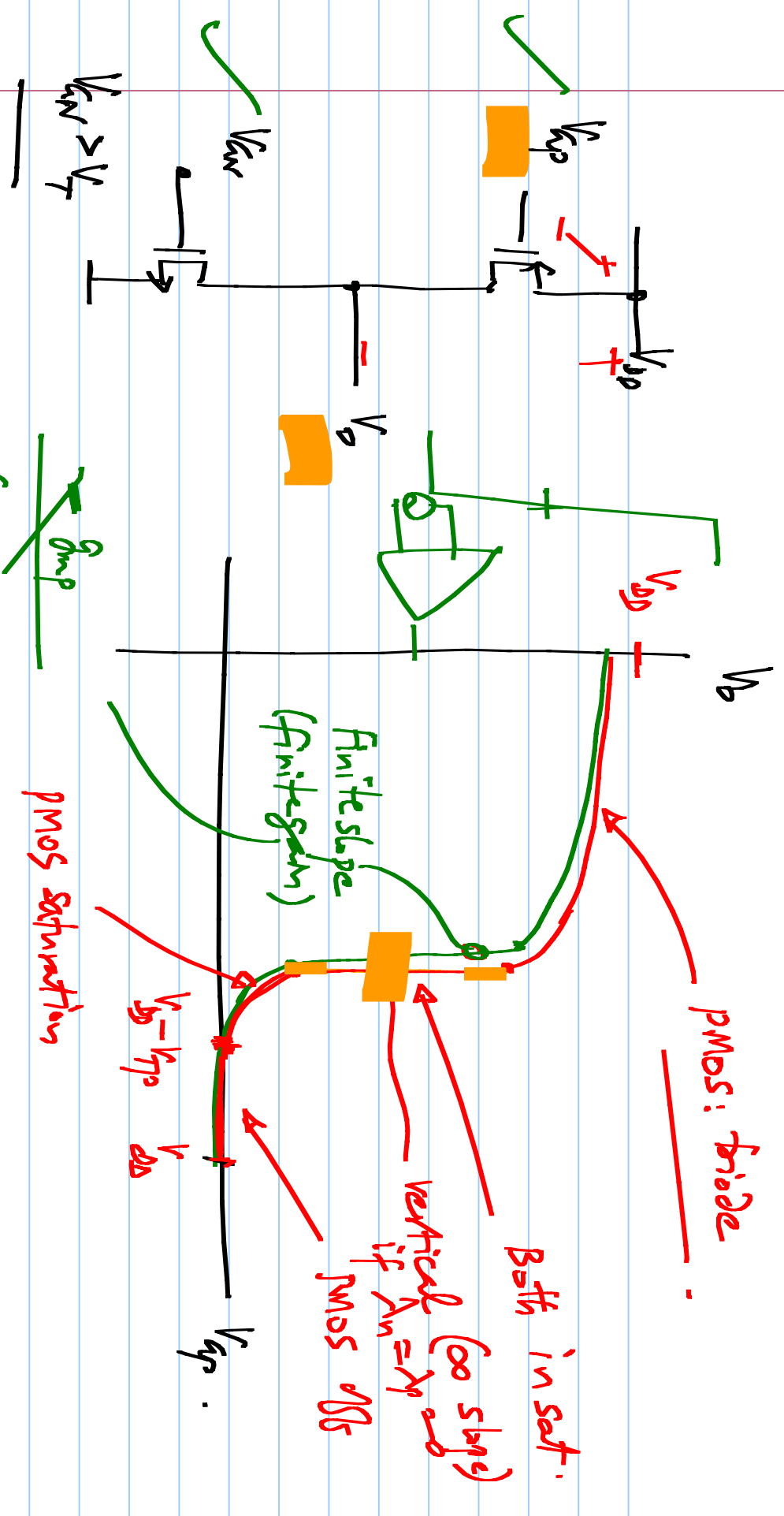


CS amplifier with an active load



$$V_{SD} = V_{DD} - V_{DS}$$

$$V_{SC} = V_{DD} - V_{GS}$$



$g_{mp} + g_{ds}$

PMOS Saturation

NMOS Saturation

Finite slope
(Finite-gain)

PMOS: triode

Both in sat.
vertical if $\lambda_n = \lambda_p = 0$

$V_{gp} > V_T$

