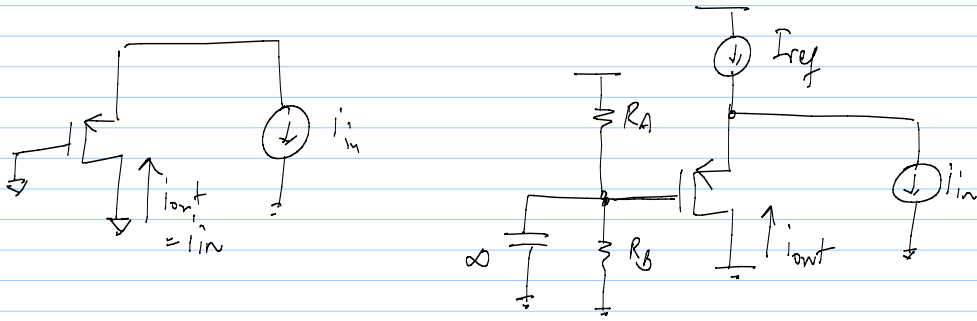


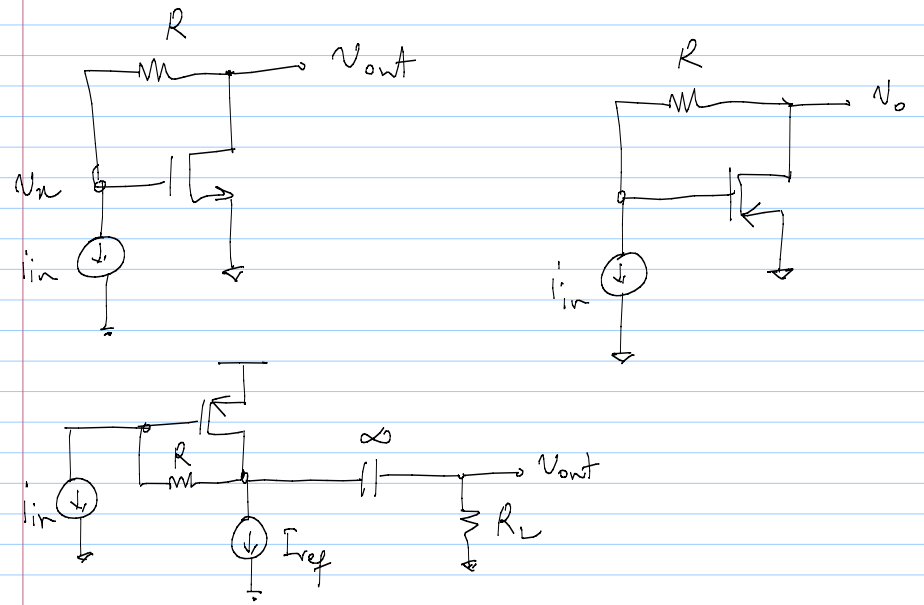
1/10/14

lec 30

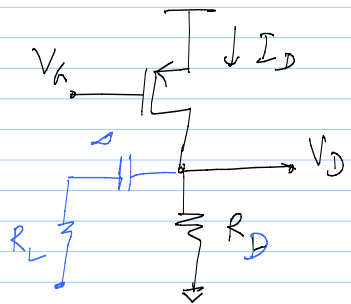
3) CCCS (Common-gate amplifier)



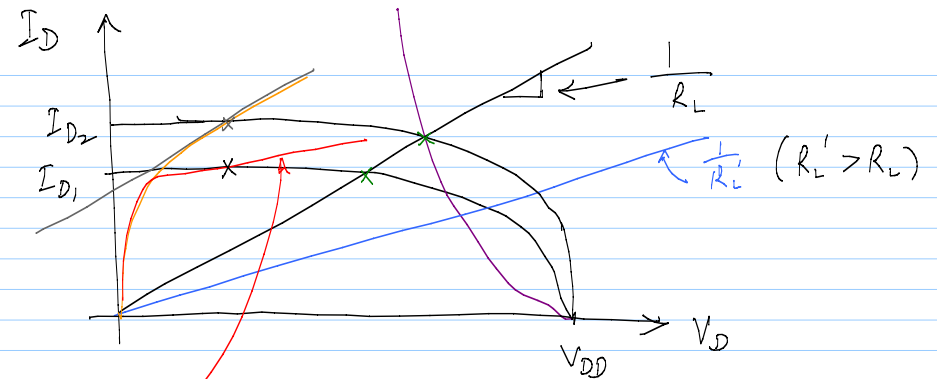
4) CLVS (Transimpedance amplifier)



Increasing gain of C.S.A.



gain = $-g_m R_L$
 \uparrow gain $\Rightarrow \uparrow I_D$ or $\uparrow R_L$
 $V_D = I_D \cdot R_L \uparrow$



this characteristic is obtained from an NMOS!
 (has the same bias current as PMOS)

