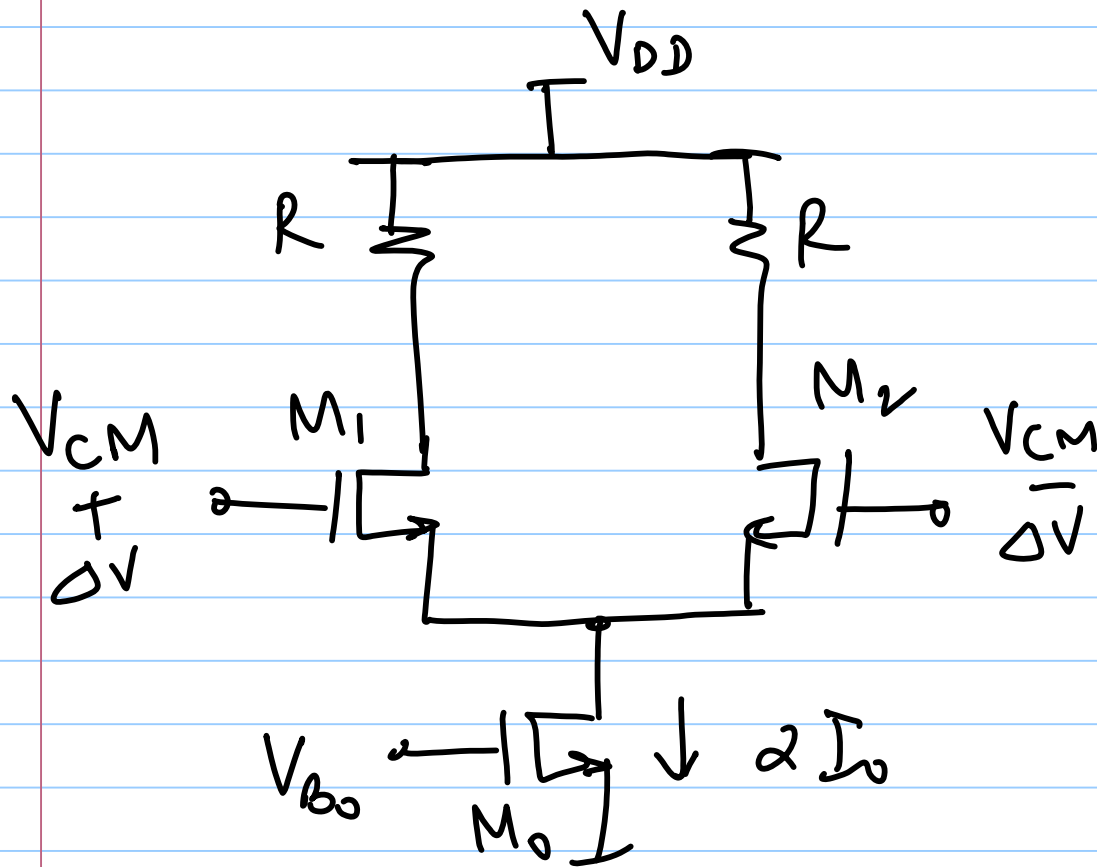


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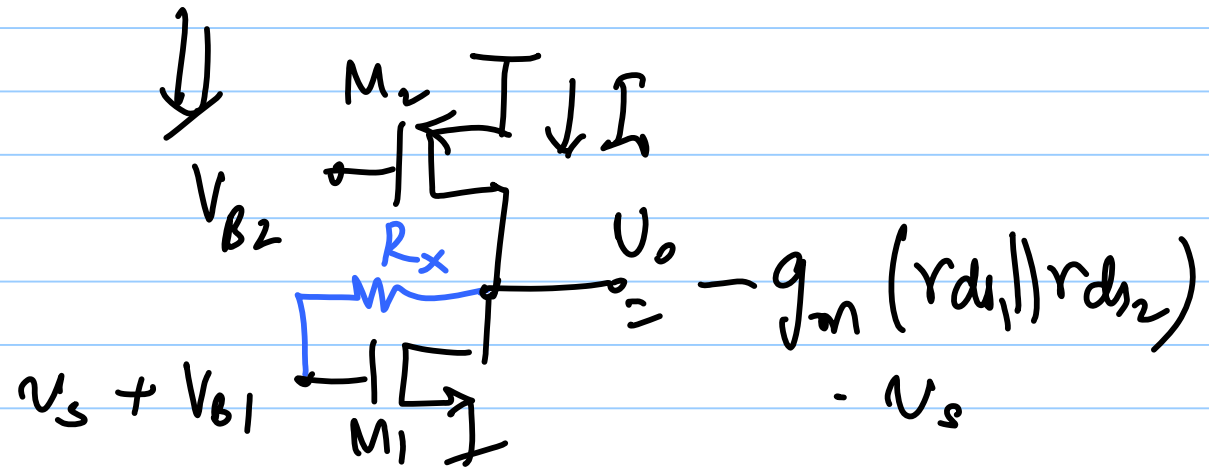
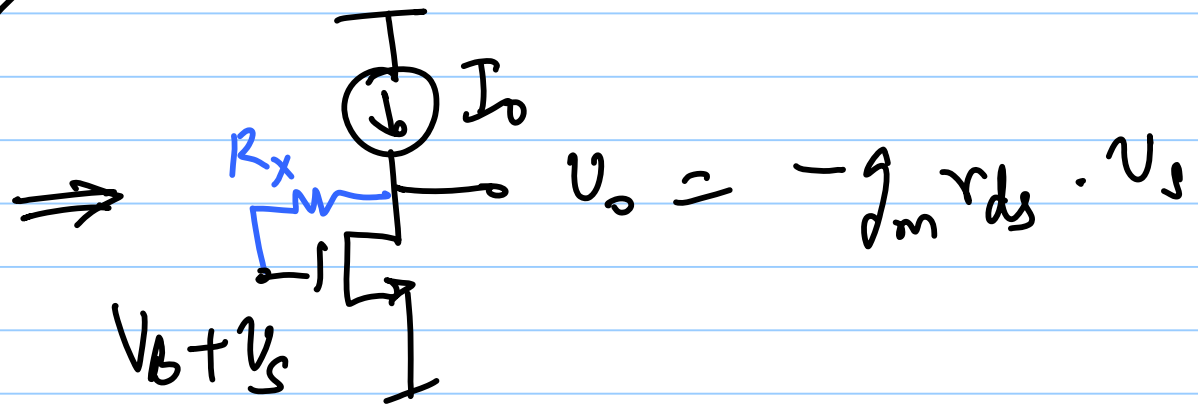
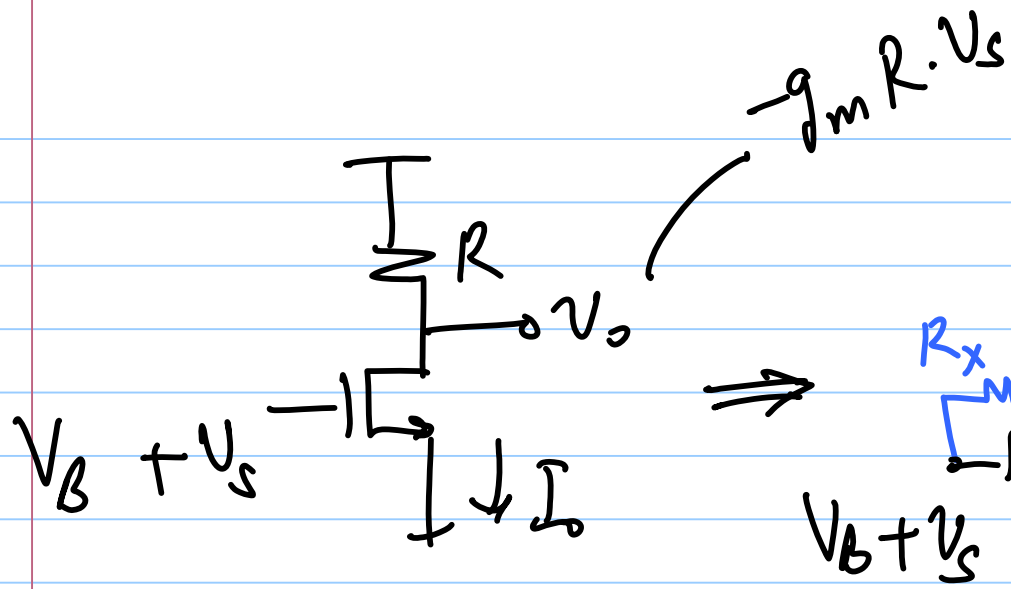
Lec 23

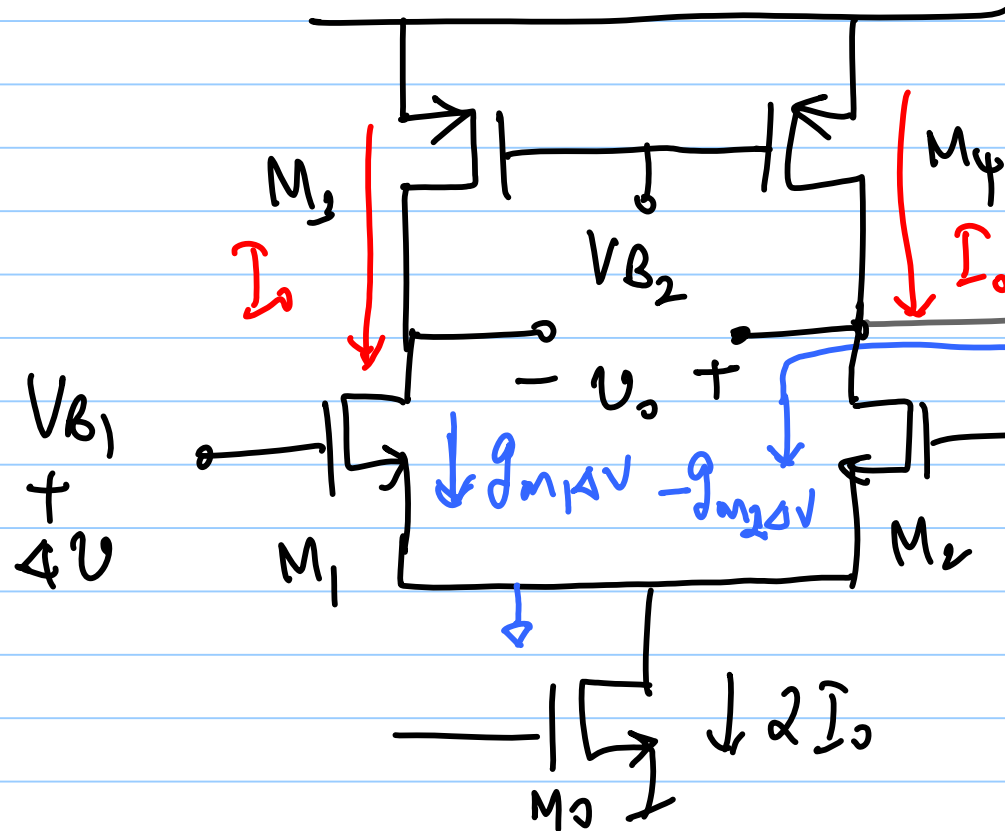


$$A_{dm} = -g_m R$$

$$A_{cm} = \frac{-g_m R}{1 + 2g_m r_{ds0}}$$

$$CMRR = \left| \frac{A_{dm}}{A_{cm}} \right|_{dB}$$
$$= 20 \log (1 + 2g_m r_{ds0})$$

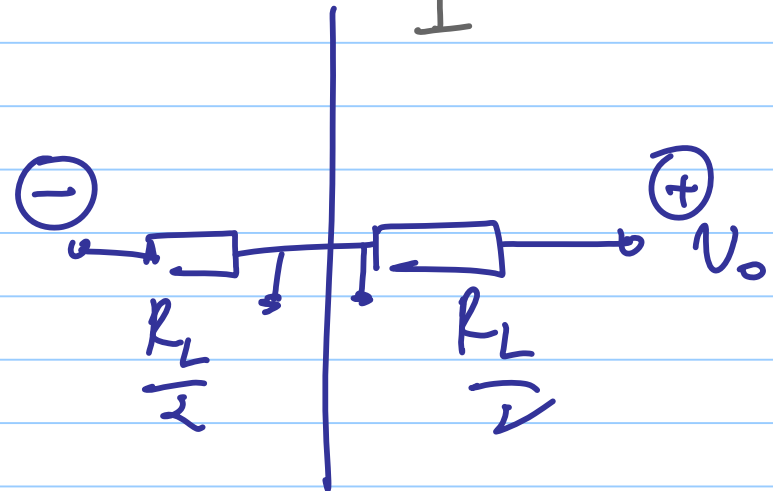


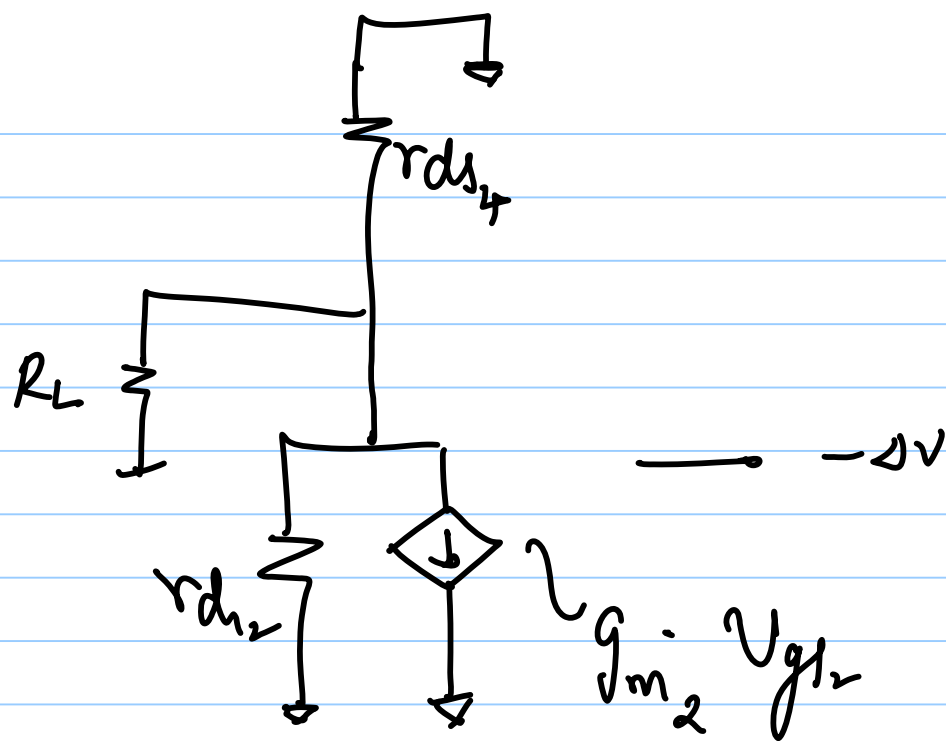
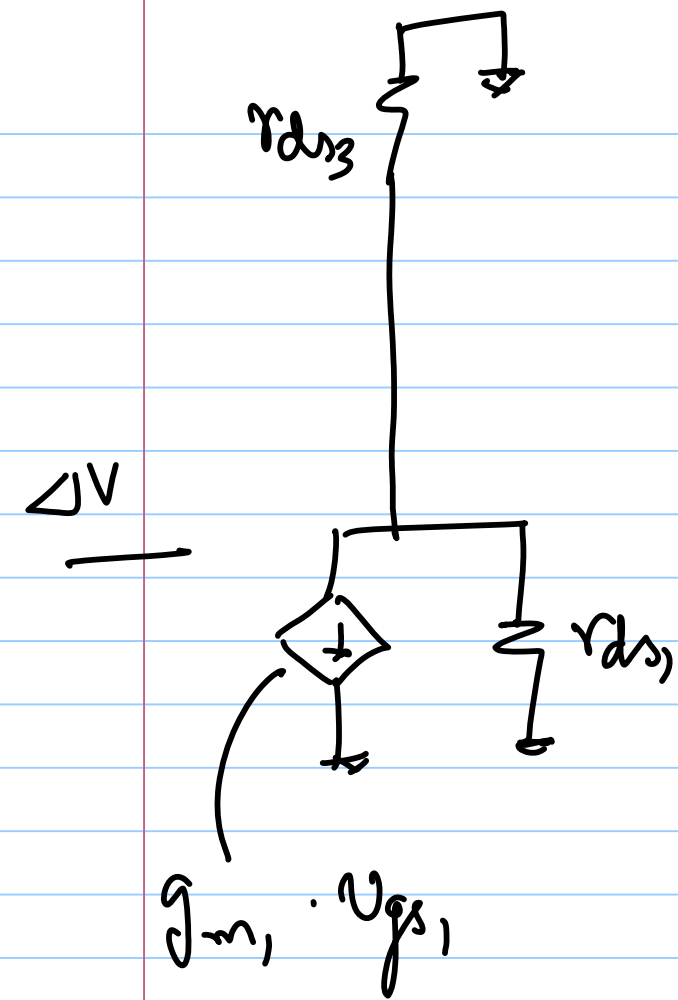


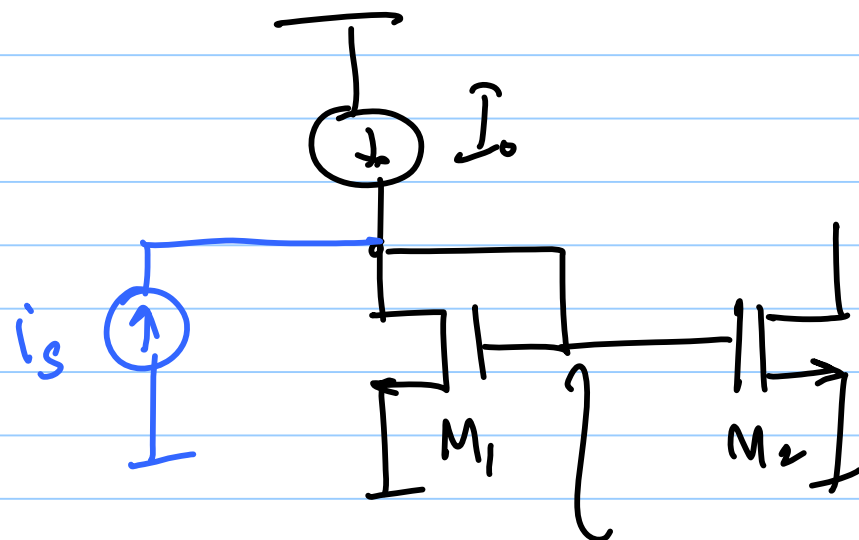
$$R_L \ll r_{ds_{12}}, r_{ds_{34}}$$

$$v_o = g_{m2} R_L \cdot \Delta v$$

$$+ g_{m2} \Delta v$$







$$\downarrow I_2 = I_0 + i_s \cdot \frac{g_{m2}}{g_{m1}}$$

$$V_{B1} + v_a \sim v_a = i_s / g_{m1}$$

