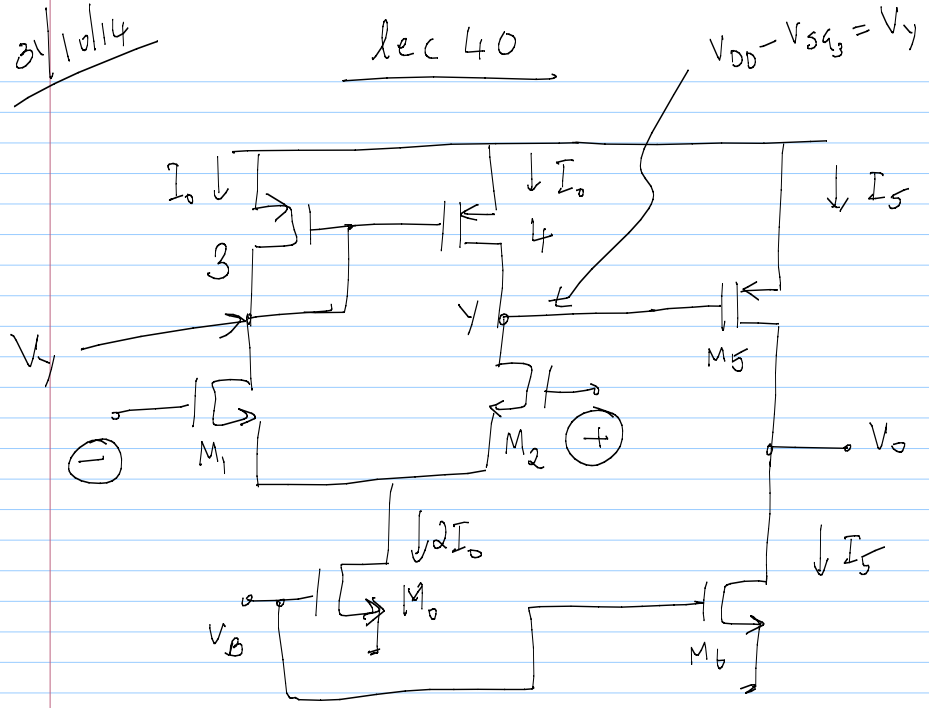
31/10/14

lec 40



$$(M_b) \quad I_5 = \frac{1}{2}\mu_n C_{ox}\left(\frac{W}{L}\right)_b \left[V_B - V_{T_n}\right]^2$$

$$(M_o) \quad 2I_o = \frac{1}{2}\mu_n C_{ox}\left(\frac{W}{L}\right)_o \left[V_B - V_{T_n}\right]^2$$

$$\frac{I_5}{2I_o} = \frac{(W/L)_b}{(W/L)_o}$$

$$(M_5) \quad I_5 = \frac{1}{2}\mu_p C_{ox}\left(\frac{W}{L}\right)_5 \left[V_{DD} - V_y - V_{T_p}\right]^2$$

$$(M_3) \quad I_o = \frac{1}{2}\mu_p C_{ox}\left(\frac{W}{L}\right)_3 \left[V_{DD} - V_y - V_{T_p}\right]^2$$

$$\Rightarrow \frac{I_5}{I_o} = \frac{(W/L)_5}{(W/L)_3} \Rightarrow \frac{I_5}{(W/L)_5} = \frac{I_o}{(W/L)_3}$$