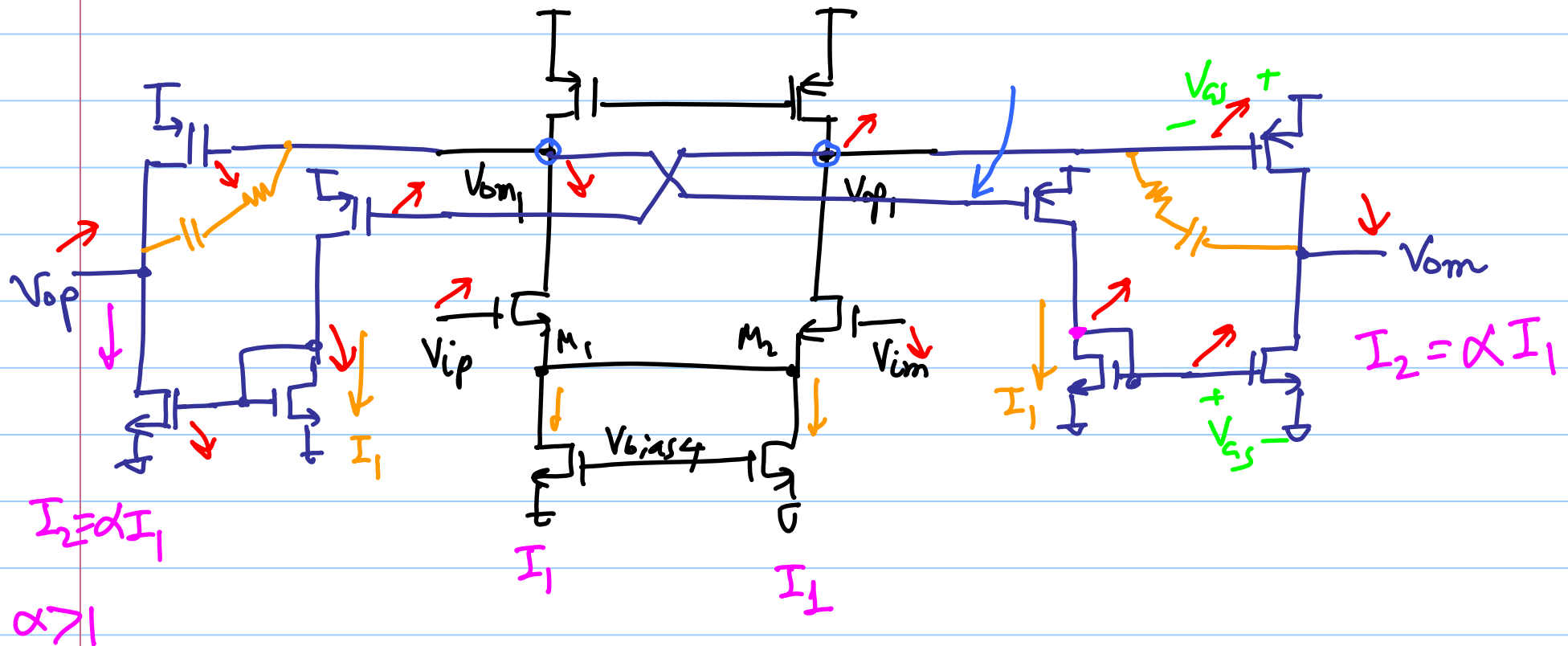
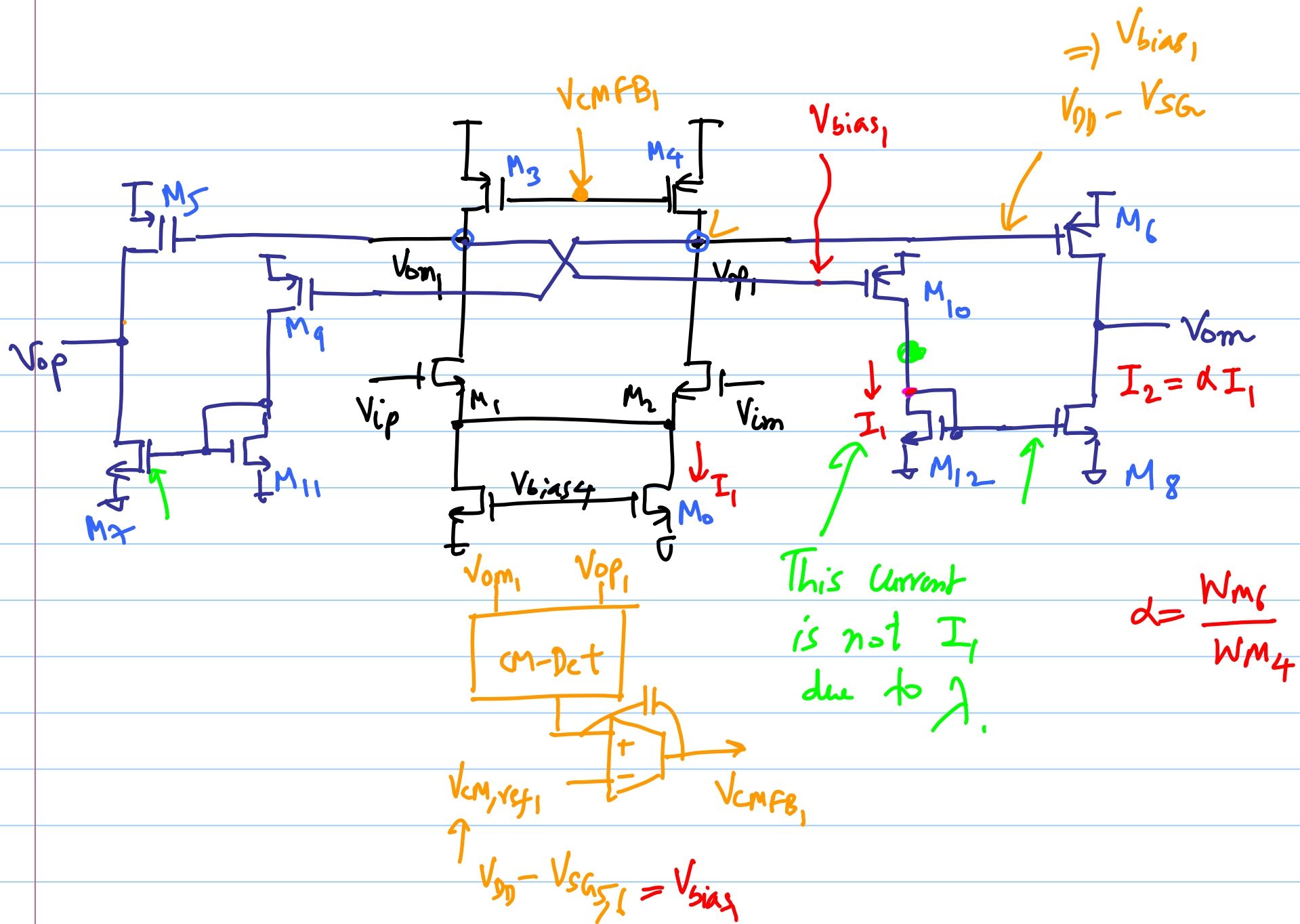


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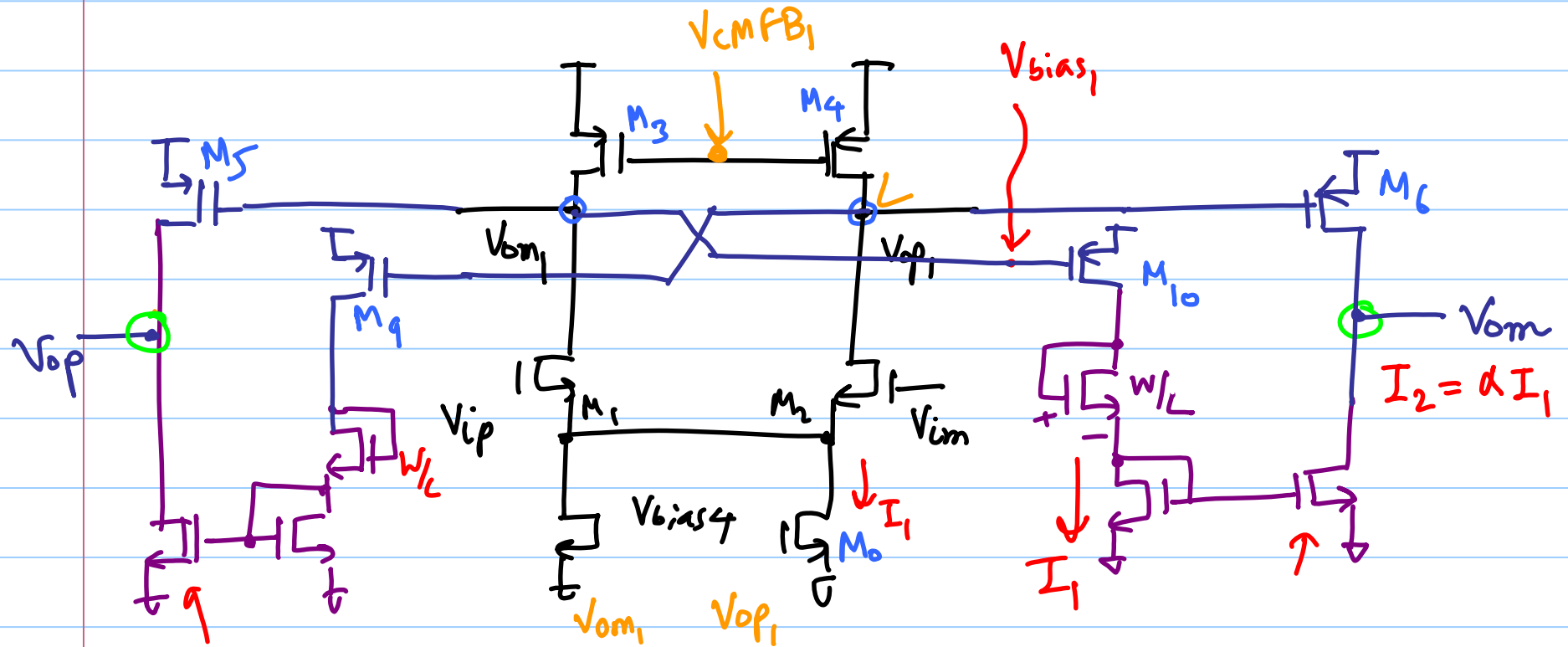
Note Title

9/11/2014



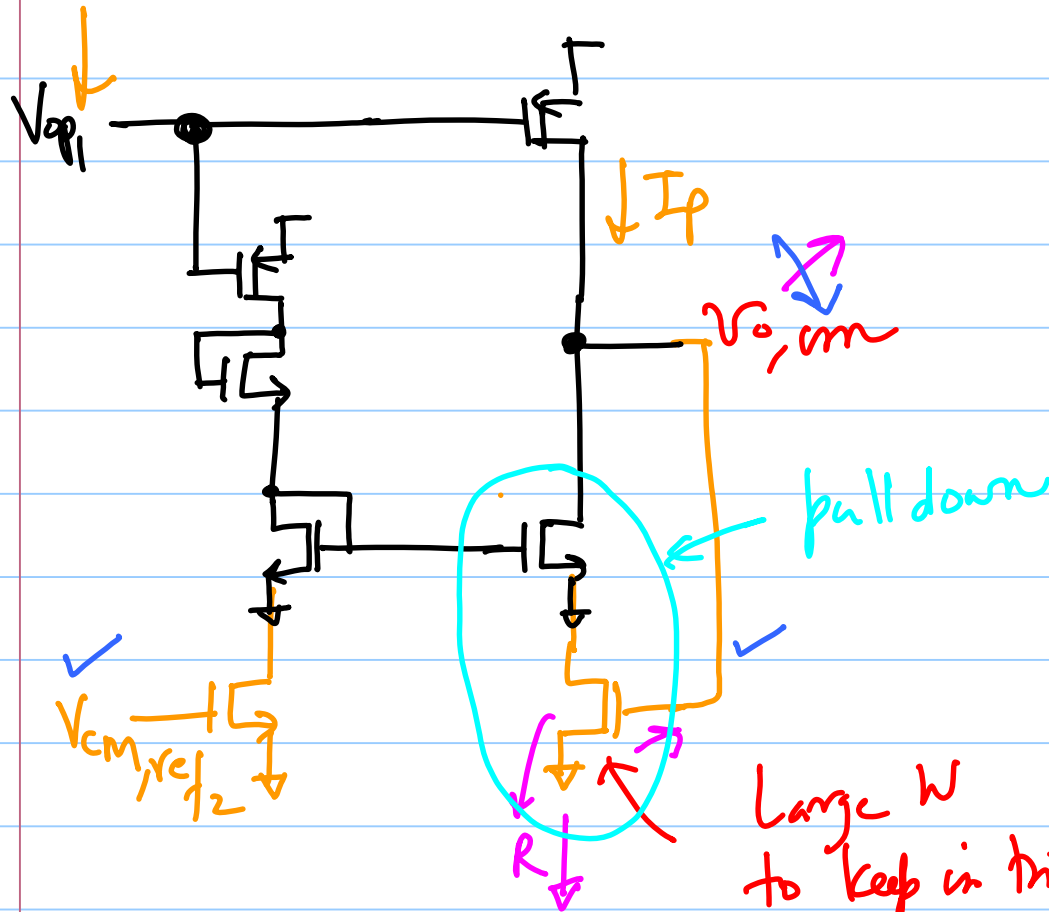


CMFB₁



V_{bias1}

Knob

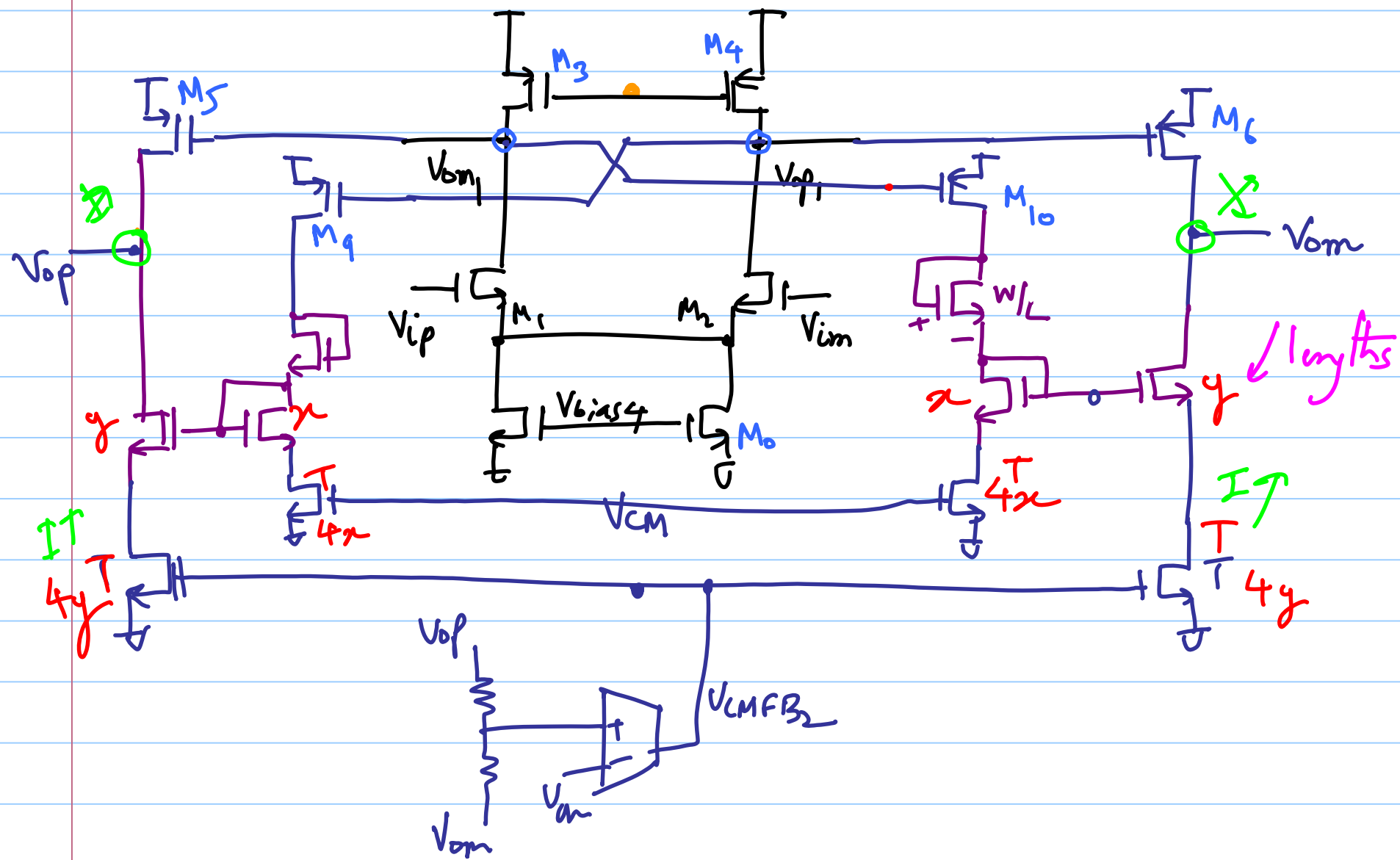


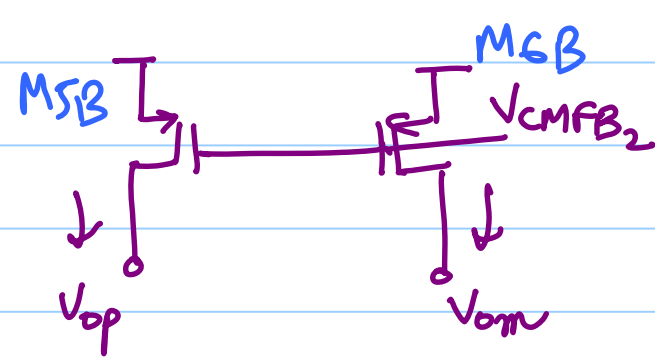
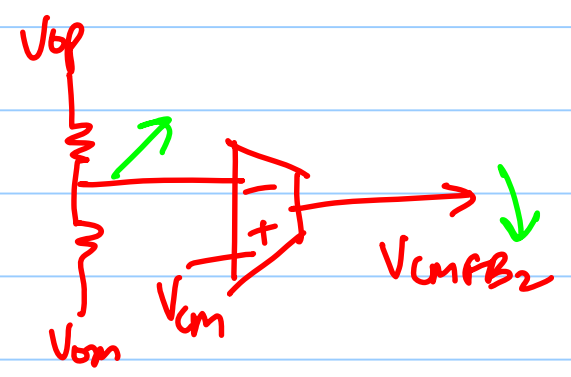
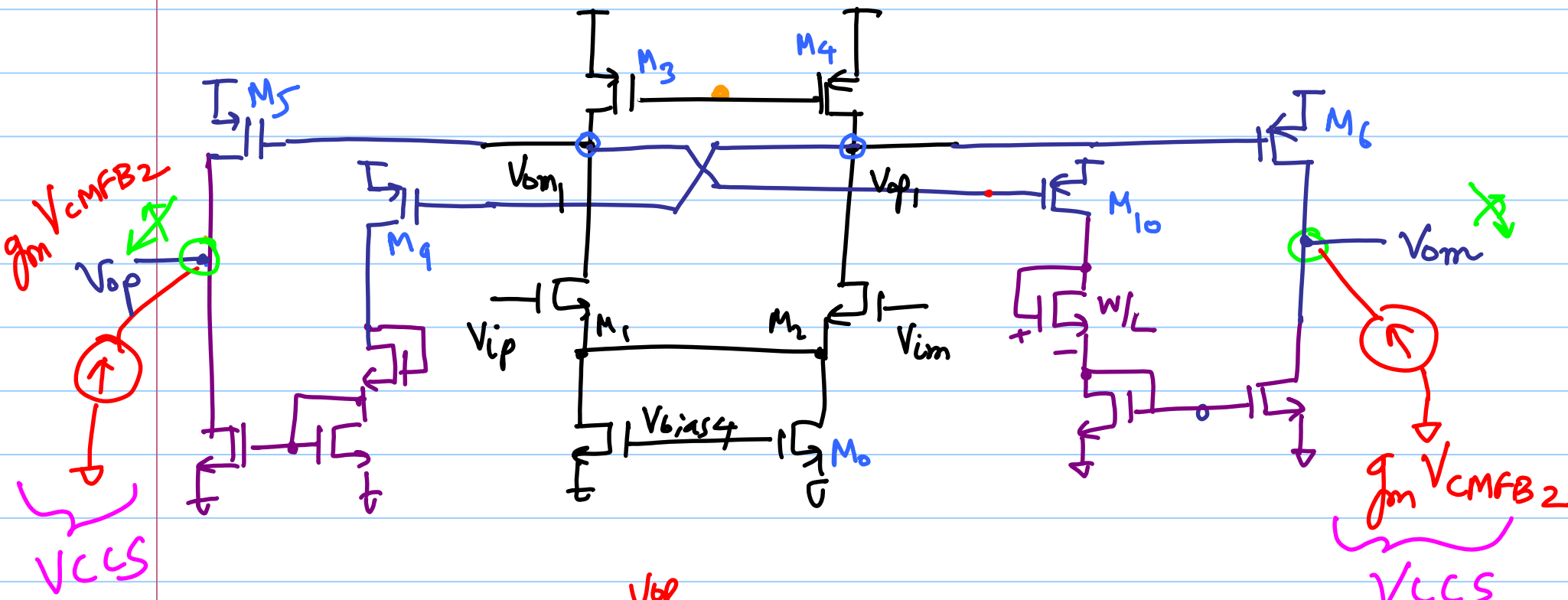
Use a Triode device

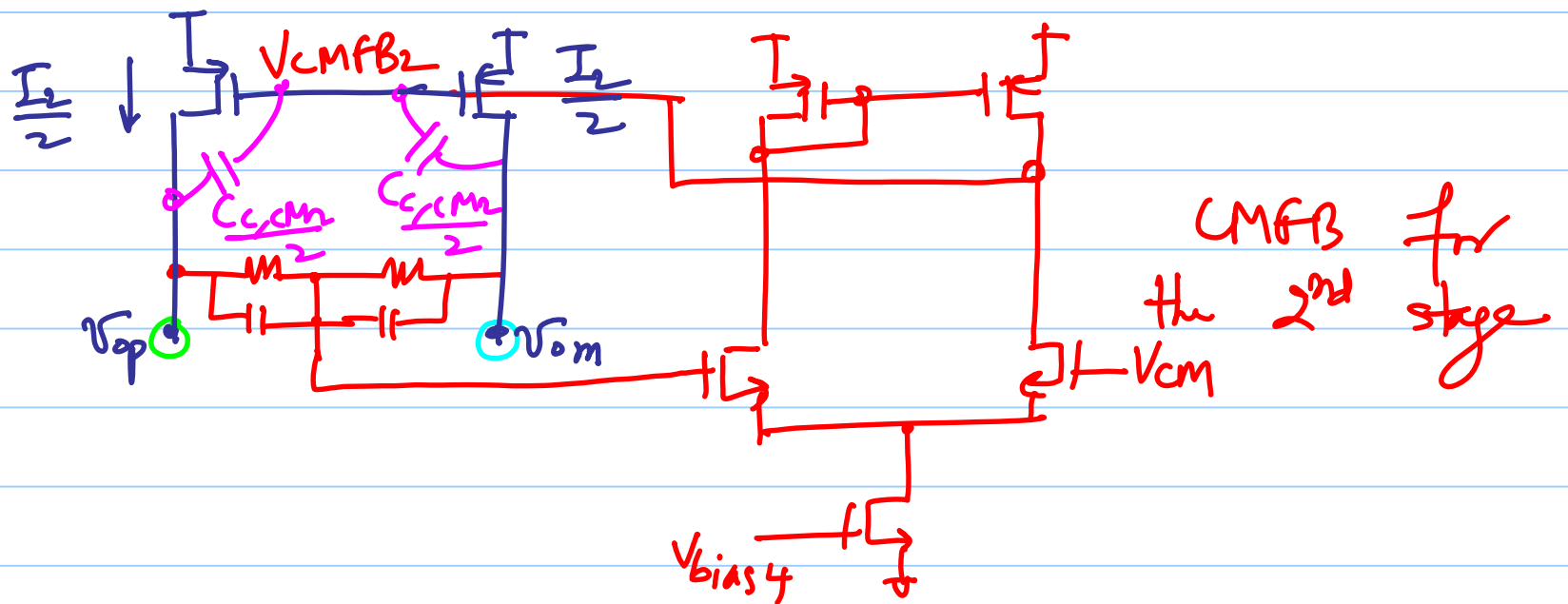
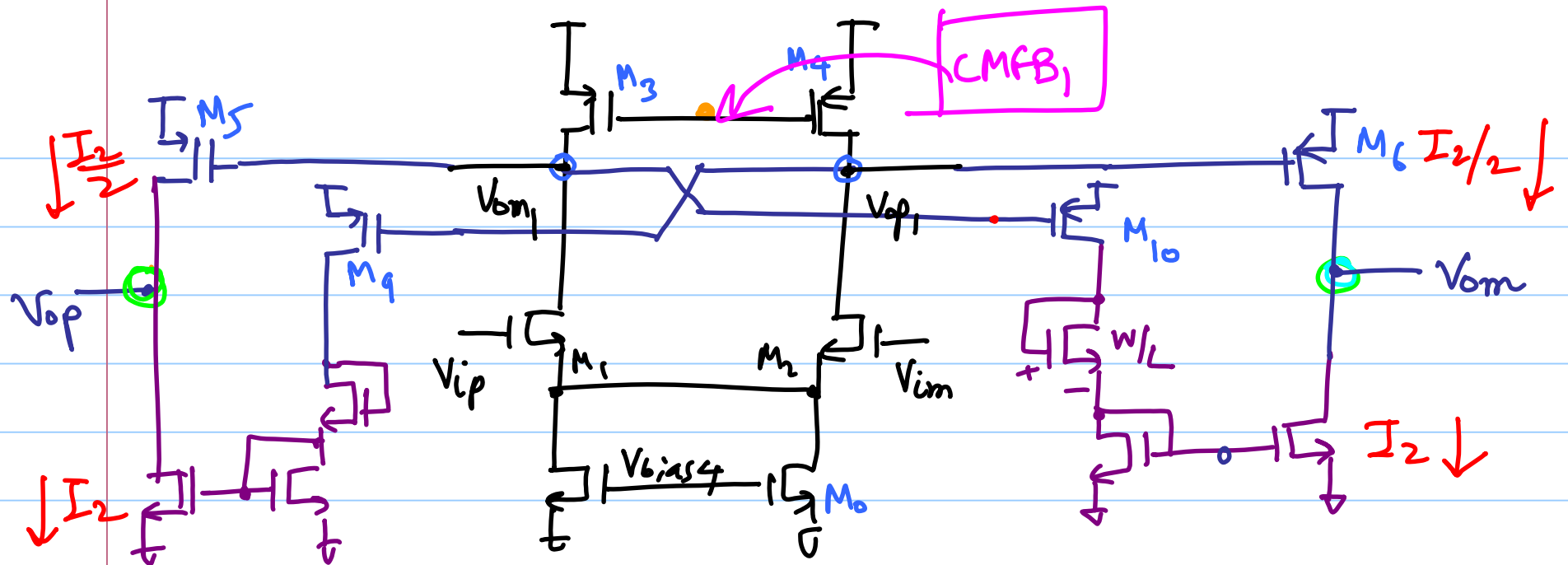
$$V_{o,cm} \uparrow$$

$$R_T \propto \frac{1}{V_{ds} - V_{thn}} \downarrow$$

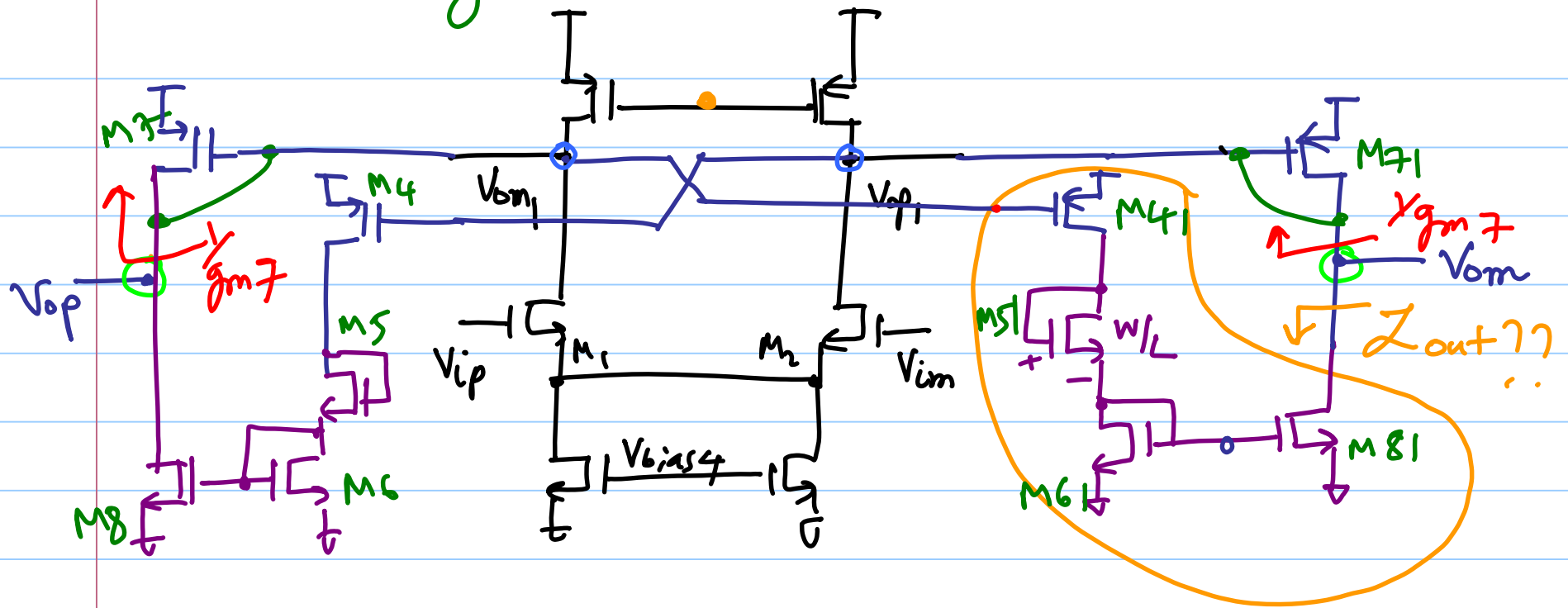
$$G_m = \frac{g_m}{1 + g_m R_T} \uparrow$$



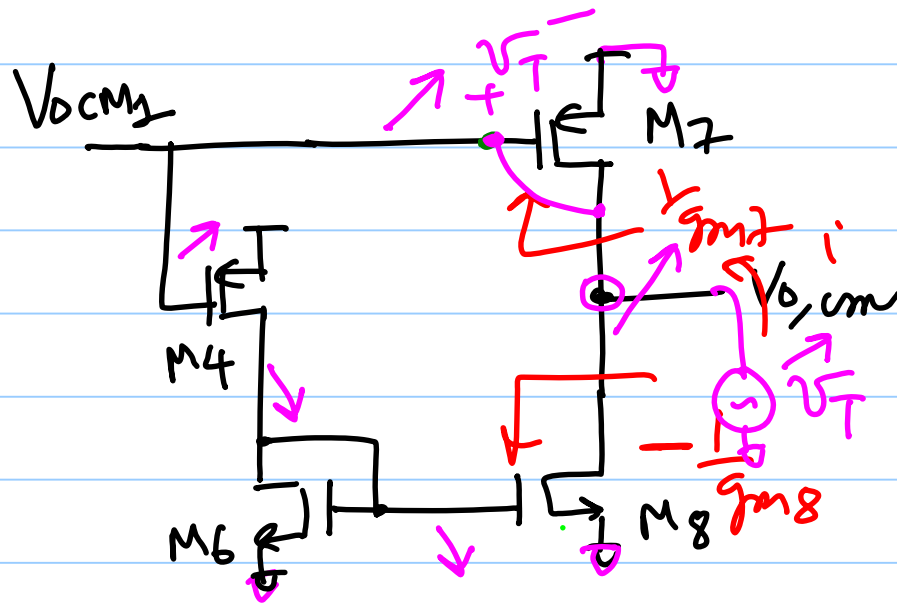




* At high frequencies "C_c" acts like a short



AC picture



ignore M_5 diode

Ensure that
 $g_{m7} > g_{m8}$
 + for the resistance

$$i_T = (g_{m7} - g_{m8}) v_T$$

$$g_{m7} = g_{m8} \Rightarrow i_T = 0$$

$$R_{in} = \infty$$

