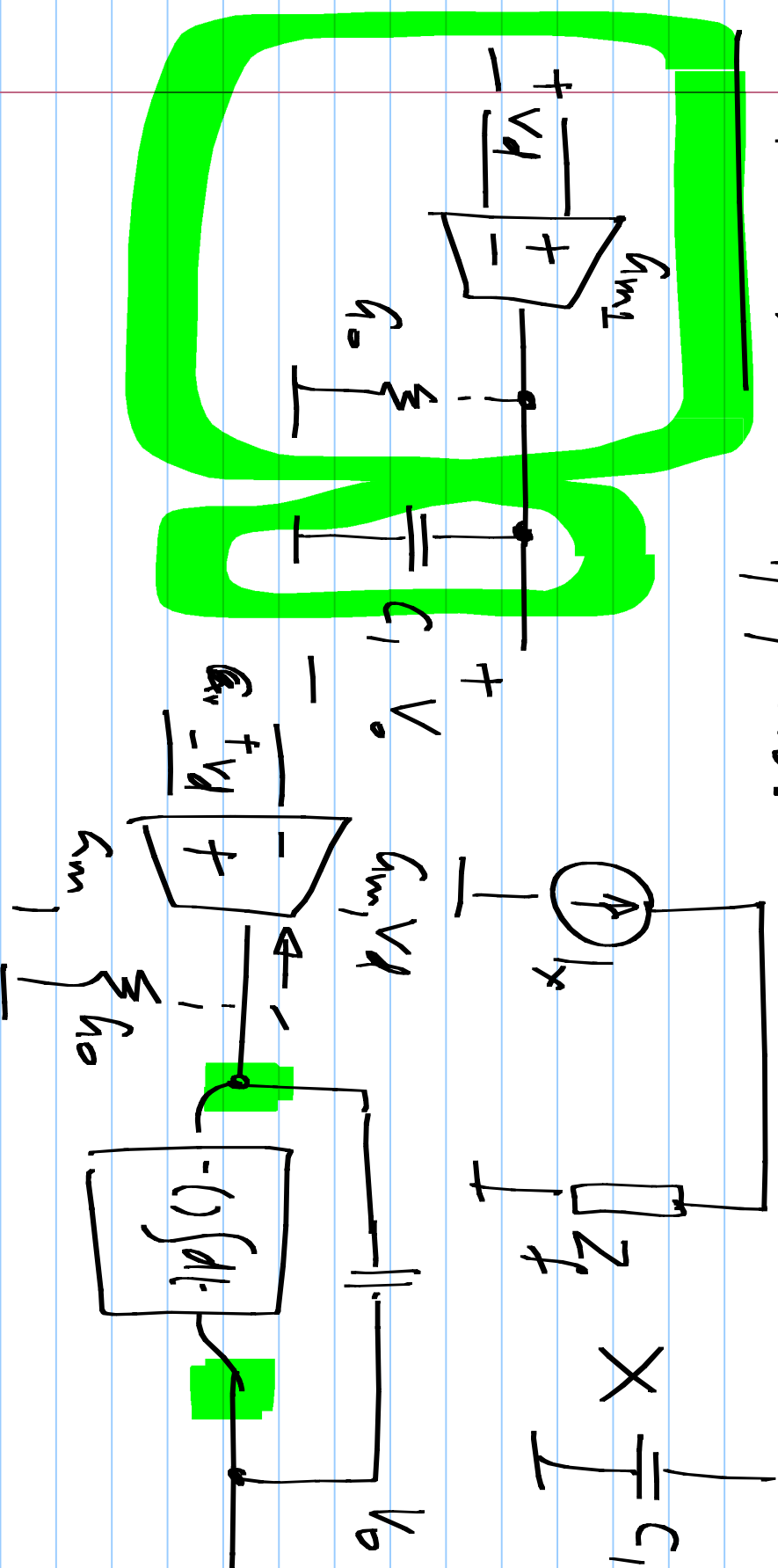
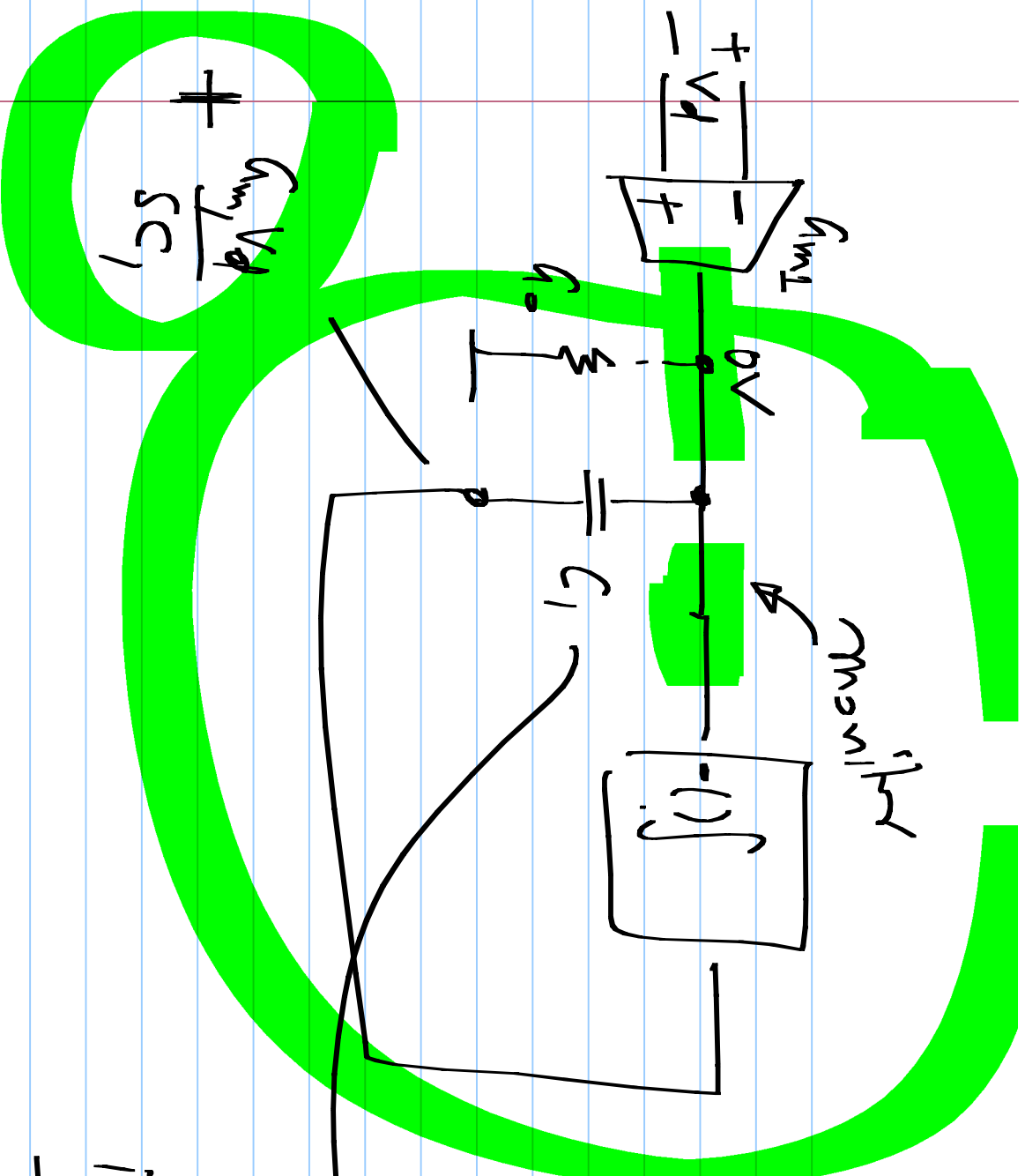


Lecture 27

14/3/2016.

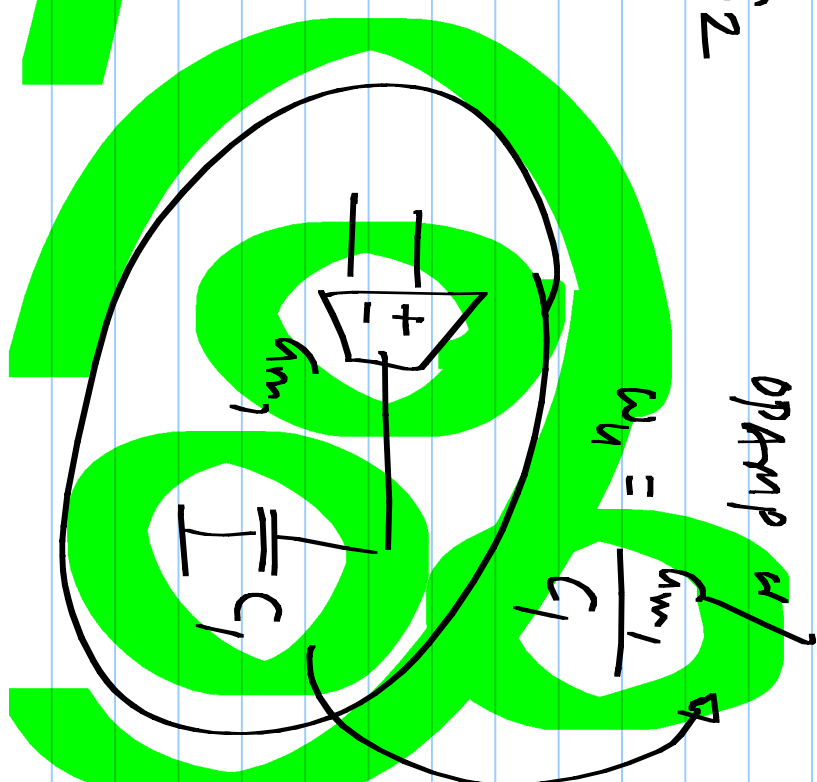
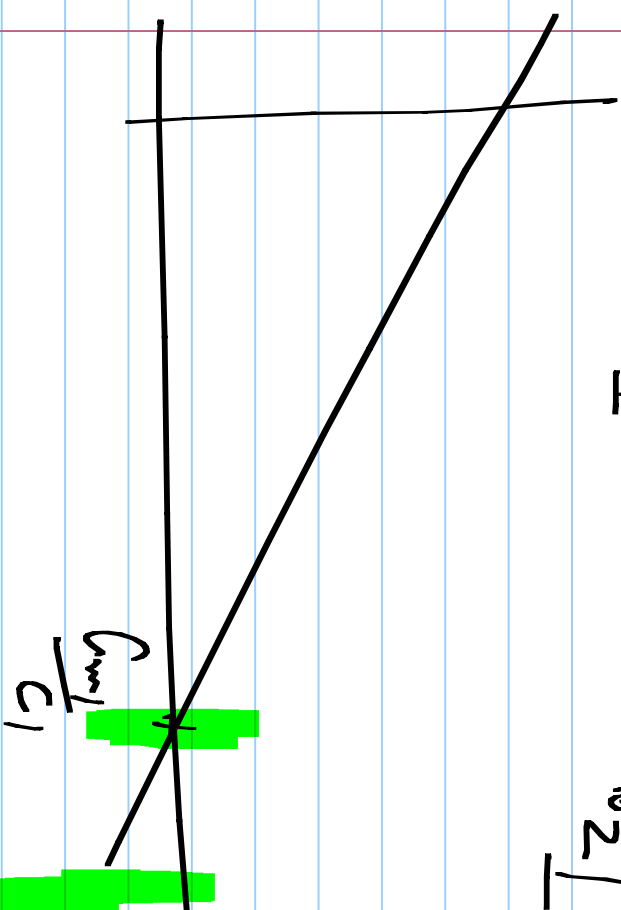
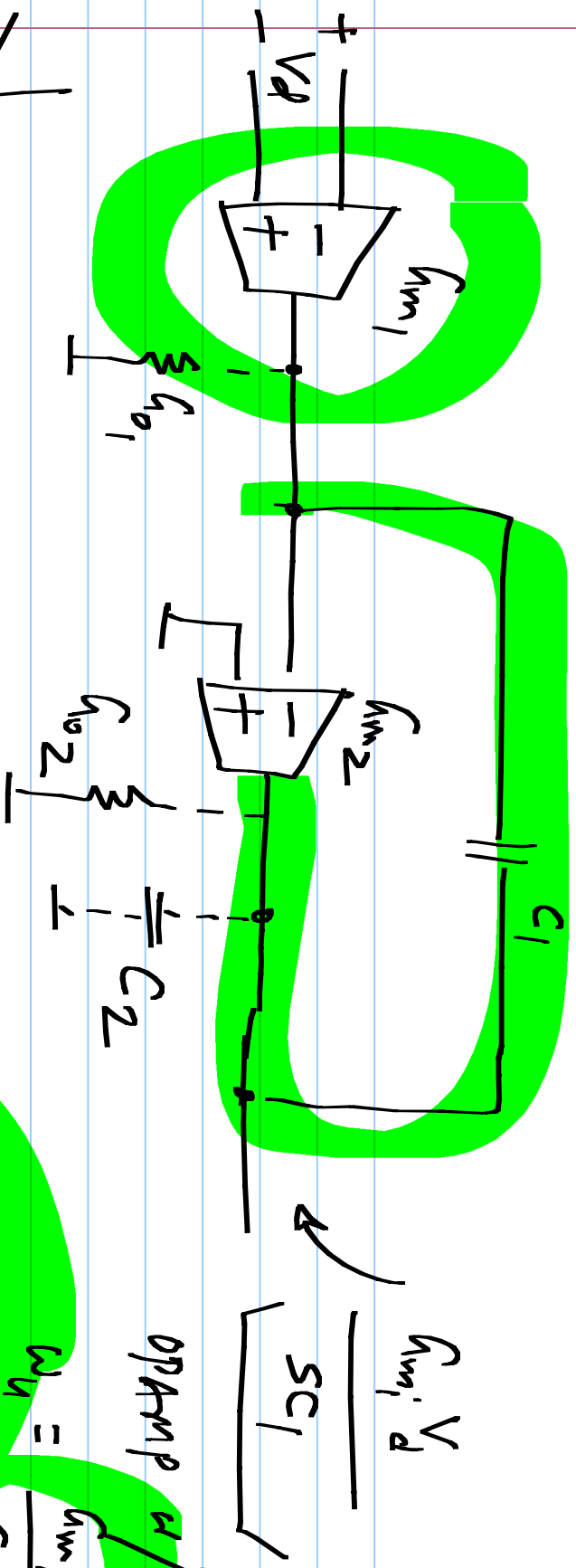
$$V_o = I_x \cdot Z_f$$

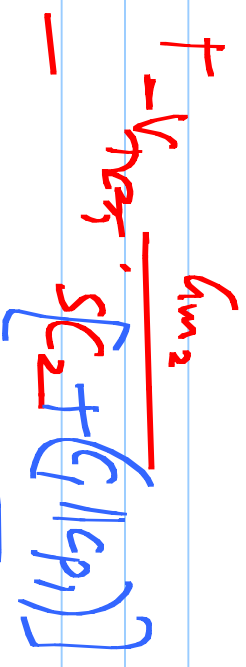




$$+ \frac{g_{m1} V_d}{s C_1}$$

Integrating
capacitor
across another
integrator

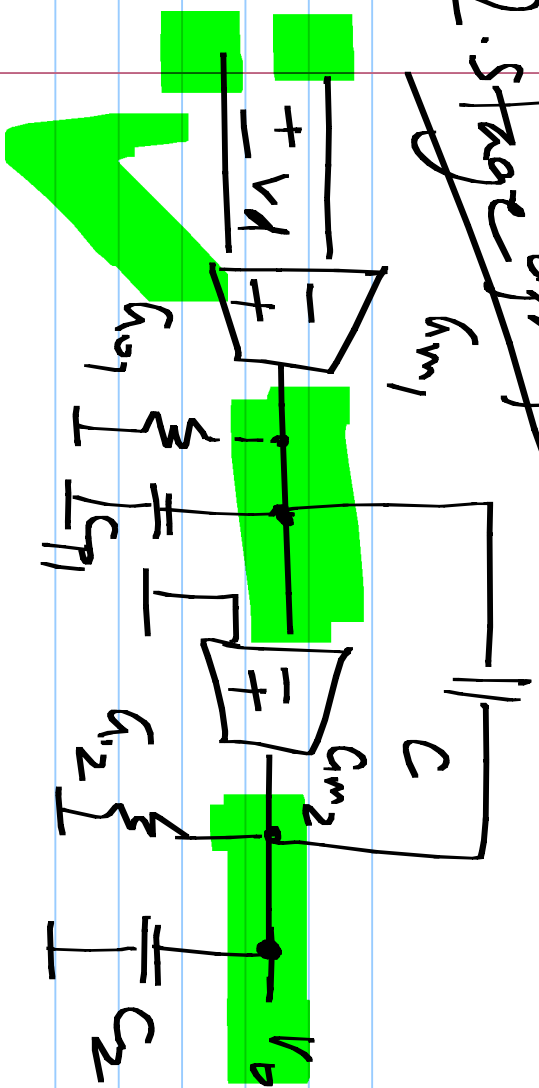




$$\frac{C_{m2}}{C_2} > \frac{C_{m1}}{C_1}$$

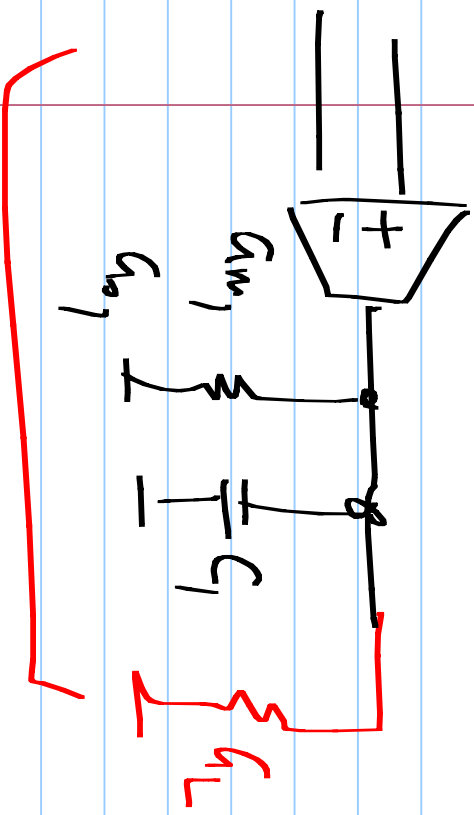
$$\frac{C_1}{C_1 + C_2} > \frac{C_1}{C_1 + C_2 + C_3}$$

2. stage opamp



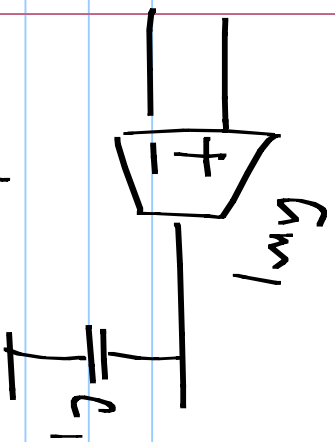
$$\frac{v_o}{v_d} =$$

dc gain: $\frac{g_{m1}}{g_{o1}} \cdot \frac{g_{m2}}{g_{o2}}$



$$\frac{g_{m1}}{(g_{o1} + g_L)}$$

$\frac{g_{m1}}{g_{o1}} \cdot \frac{g_{m2}}{(g_{o2} + g_L)}$



simple
diff. pair

Folded cascode

Telescopic cascode

