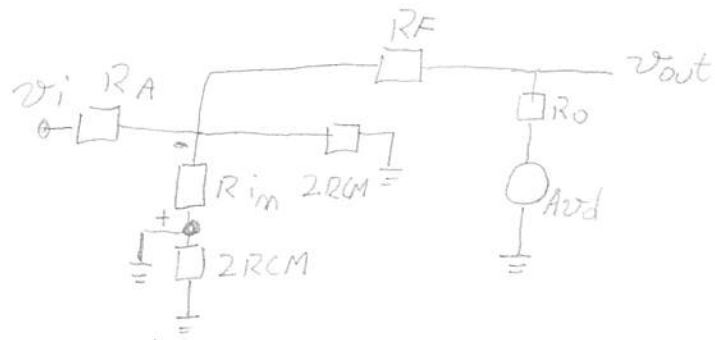
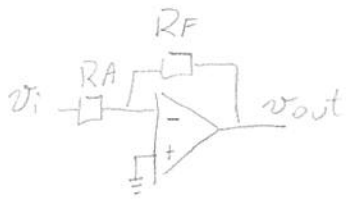
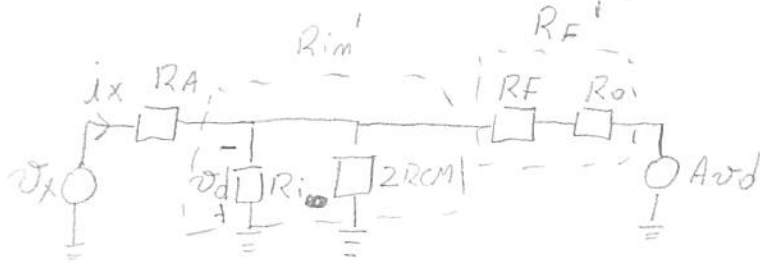


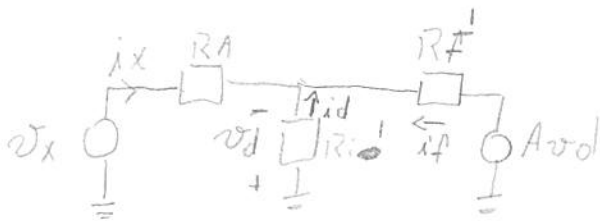
Aula 12 - exercício



- $R_i = 2M\Omega$
- $2RCM = 400M\Omega$
- $R_o = 75\Omega$
- $A_v = 10^5$



- $R_i' = R_i \parallel 2RCM$
- $R_F' = R_F + R_o$



$$\bullet i_x + i_d + i_f = 0$$

$$i_x + \frac{v_d}{R_{im}} + \frac{A v_d + v_d}{R_F'} = 0$$

$$i_x = - \frac{v_d R_F' + v_d R_i' (A+1)}{R_i' R_F'}$$

$$\bullet i_x = - \frac{v_d (R_F' + R_i' (A+1))}{R_i' R_F'}$$

$$\bullet i_x = \frac{v_x + v_d}{R_A} \Rightarrow v_x = R_A i_x - v_d$$

$$\bullet R_{im} = \frac{v_x}{i_x} = R_A - \frac{v_d}{i_x} = R_A + \frac{1}{\frac{R_F' + R_i' (A+1)}{R_i' R_F'}}$$

$$R_{im} = R_A + \frac{R_i' R_F'}{R_F' + R_i' (A+1)}$$