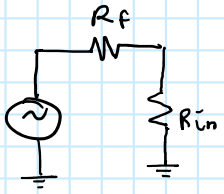
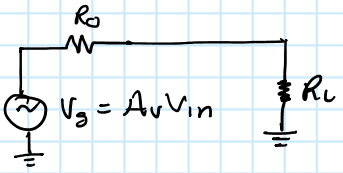
Amplificador Operacional

Friday, 22 November 2019 7:39 AM

- 



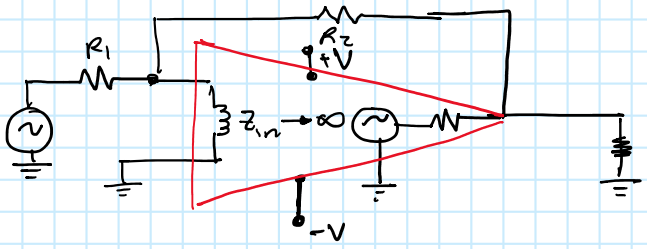
$V_L = i_L R_L$

$V_o = i_L R_o + i_L R_L \;;\; i_L = \frac{V_o}{R_o + R_L} \;;\; V_L = V_o \frac{R_L}{R_o + R_L}$

$V_L = V_{in} A_V = \frac{R_L}{R_o + R_L} \longrightarrow V_{in} = i_{in} R_{in}$

$V_L = i_{in} R_f + i_{in} R_{in} \;;\; i_{in} = \frac{V_f}{R_f + R_{in}} \;;\; V_{in} = \left(\frac{V_f}{R_f + R_{in}}\right)(R_{in})$

$\therefore \frac{V_L}{V_f} = \left(\frac{R_{in}}{R_f + R_{in}}\right)\left(A_V\right)\left(\frac{R_L}{R_o + R_L}\right) = A_V$



$A_V = \frac{R_z}{R_1}$