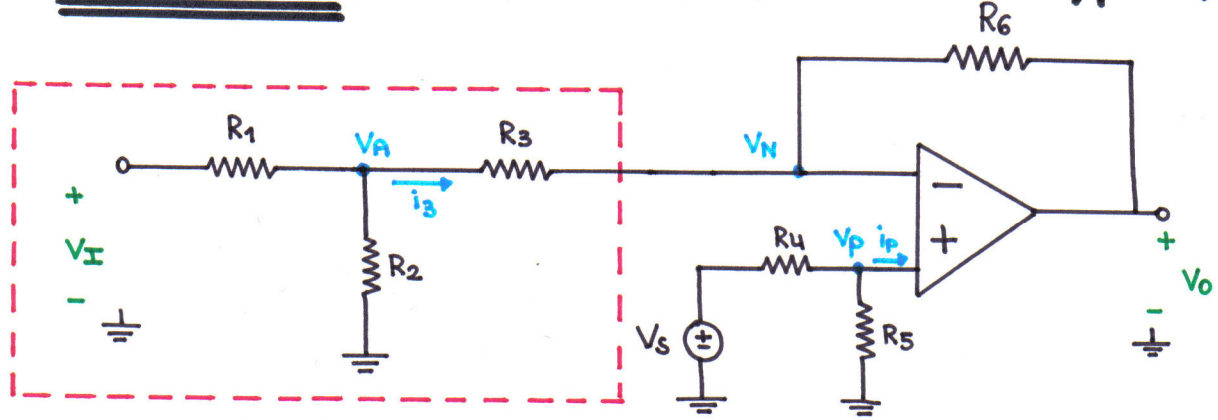
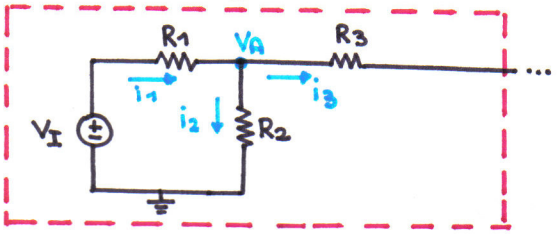
For **PROBLEM 2** there have been 2 recurrent types of mistake



EQUIVALENT TO

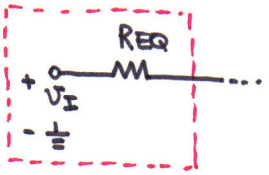


1. if i_3 were $\not{0}$, then $i_2 = i_3 = \frac{V_I}{R_1+R_2} \Rightarrow V_A = \frac{R_2}{R_1+R_2} \cdot V_I$

but $\boxed{i_3 \neq 0} \Rightarrow$ ~~$V_A = \frac{R_2}{R_1+R_2} V_I$~~

NOTE THAT $V_p = \frac{R_5}{R_4+R_5} V_S$ because $i_p = 0$ and therefore R_4 and R_5 are connected in series.

2. R_1 and R_2 are <u>not</u> connected in parallel so you can't substitute [ ] with



where $R_{EQ} = R_1 // R_2 + R_3$