

$$\text{Node A: } -\frac{V_A - V_1}{R_1} - \frac{V_A - V_2}{R_2} - i_N - \frac{V_A - V_0}{R_F} = 0$$

Ideal OP AMP Constraints

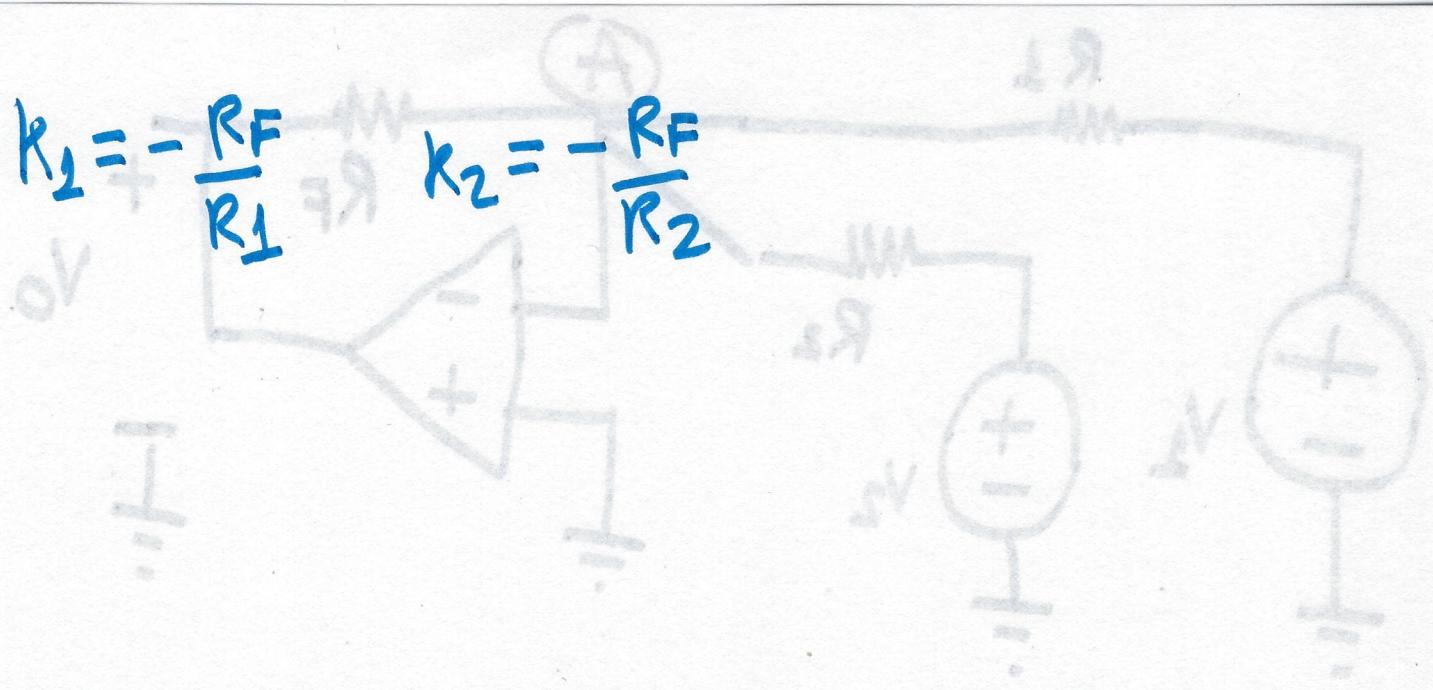
$$V_A = V_N = 0V \quad i_N = 0$$

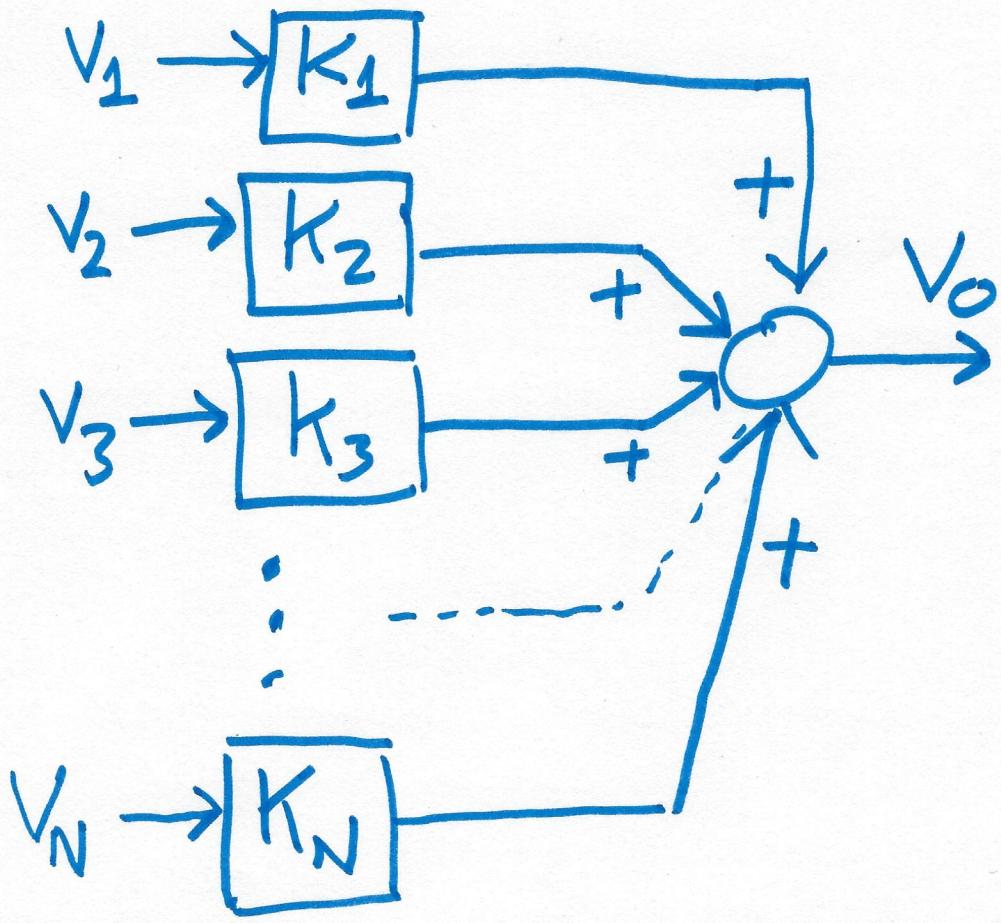
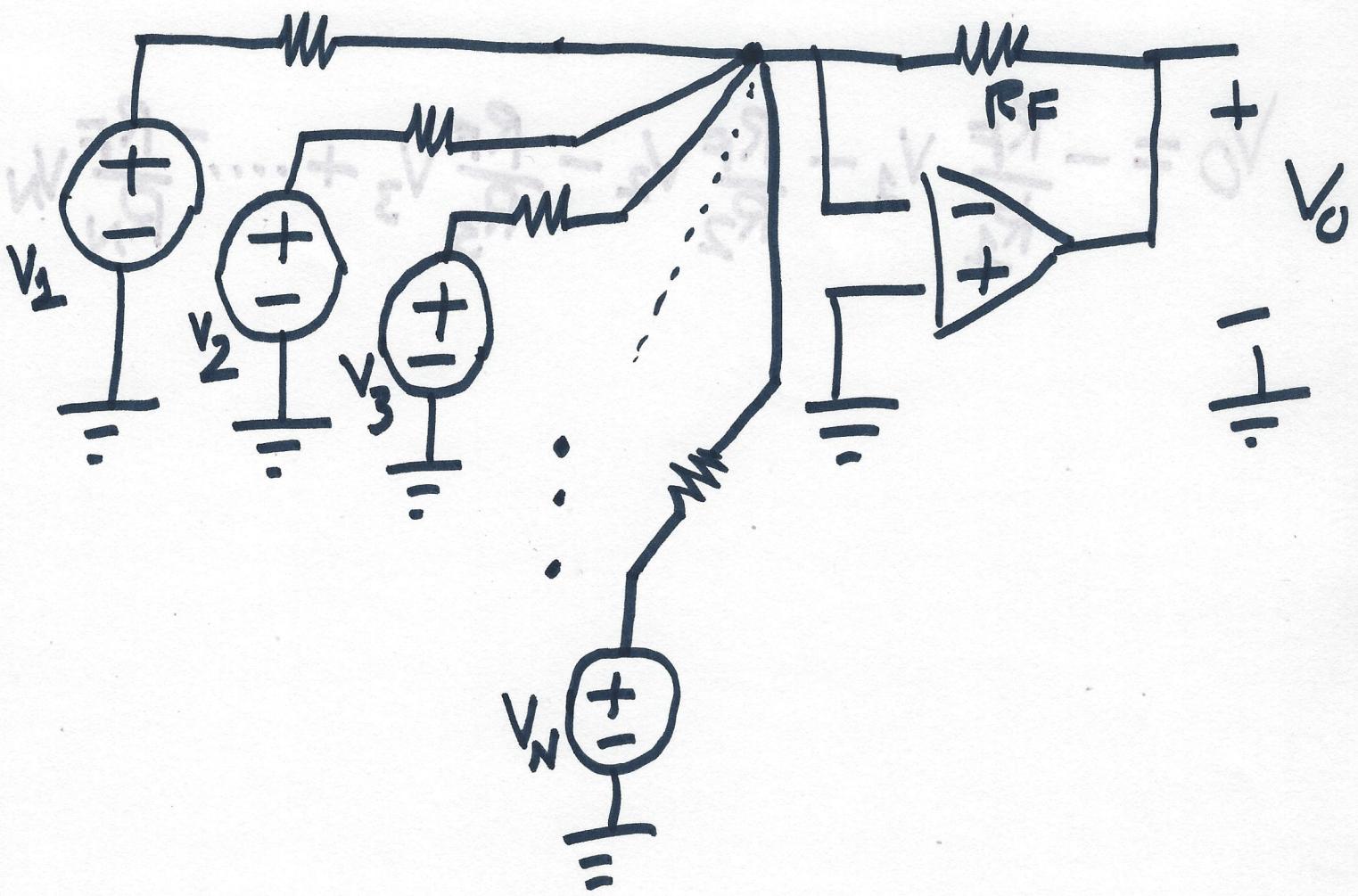
$$\rightarrow \frac{V_1}{R_1} + \frac{V_2}{R_2} - 0 + \frac{V_0}{R_F} = 0$$

$$\rightarrow V_0 = -\frac{R_F}{R_1} V_1 - \frac{R_F}{R_2} V_2$$

$\boxed{K_1}$        $\boxed{K_2}$

$$K_1 = -\frac{R_F}{R_1} \quad K_2 = -\frac{R_F}{R_2}$$





$$V_0 = -\frac{R_F}{R_1} V_1 - \frac{R_F}{R_2} V_2 - \frac{R_F}{R_3} V_3 + \dots - \frac{R_F}{R_N} V_N$$

