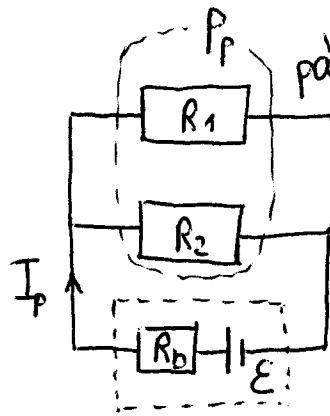
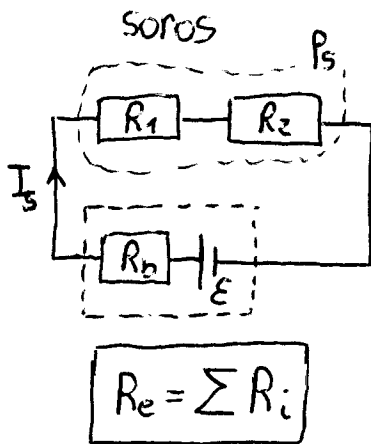


18.) R_1, R_2 $P_S = P_P$ $R_b = ?$



$$\frac{1}{R_e} = \sum \frac{1}{R_i}$$

$$I = \frac{\varepsilon}{R_e}$$

$$P = I^2 R$$

$$R_S = R_b + R_1 + R_2$$

$$I_S = \frac{\varepsilon}{R_S}$$

$$P_S = I_S^2 (R_1 + R_2)$$

$$R_P = R_b + \frac{R_1 R_2}{R_1 + R_2}$$

$$I_P = \frac{\varepsilon}{R_P}$$

$$P_P = I_P^2 \frac{R_1 R_2}{R_1 + R_2}$$

$$\frac{\varepsilon^2}{(R_b + R_1 + R_2)^2} (R_1 + R_2) = \frac{\varepsilon^2}{\left(R_b + \frac{R_1 R_2}{R_1 + R_2}\right)^2} \frac{R_1 R_2}{R_1 + R_2}$$



$$\underline{\underline{R_b = f(R_1, R_2)}}$$