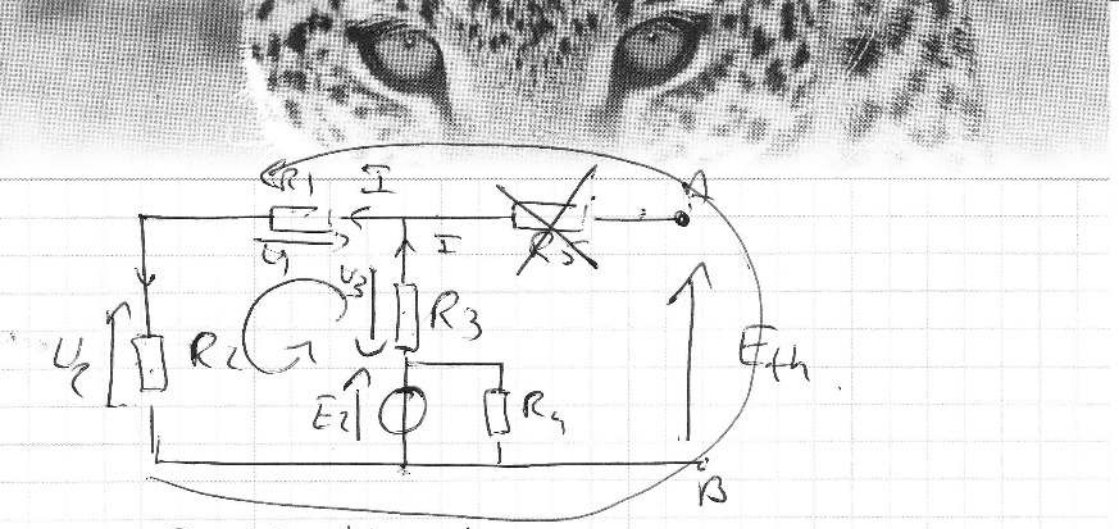


$$E_2 - U_3 - U_1 - U_2 = 0$$

$$R_3 I + R_1 I + R_2 I = E_2$$

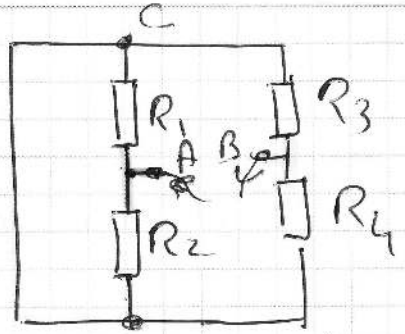
$$I = \frac{E_2}{R_1 + R_2 + R_3}$$

$$E_{th} - U_1 - U_2 = 0$$

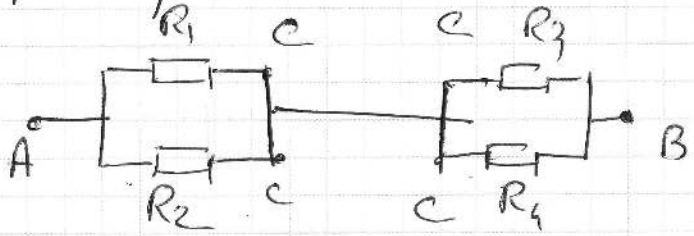
$$E_{th} = R_1 I + R_2 I$$

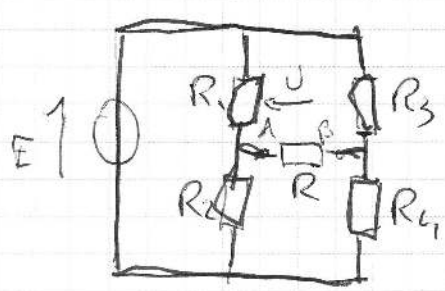
$$= \frac{R_1 + R_2}{R_1 + R_2 + R_3} E_2$$

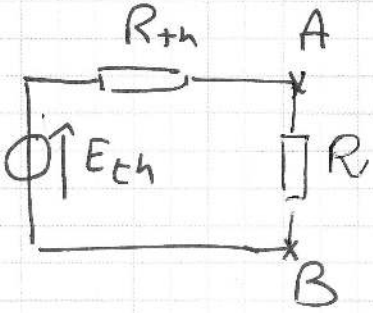
• R_{th} :



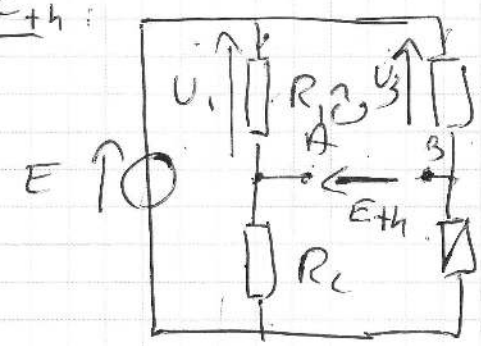
R_{eq} me dit vu depuis A et B : Ça imagine que le courant arrive par A et repart par B.







• E_{th} :



Circuit ouvert entre A et B

⇒ même courant dans R_1 et R_2

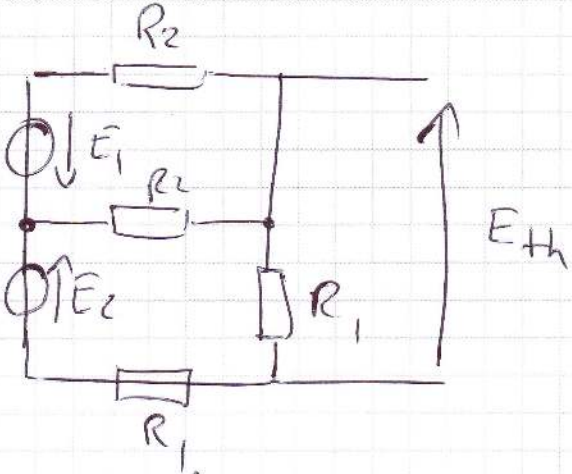
⇒ même courant dans R_3 et R_4

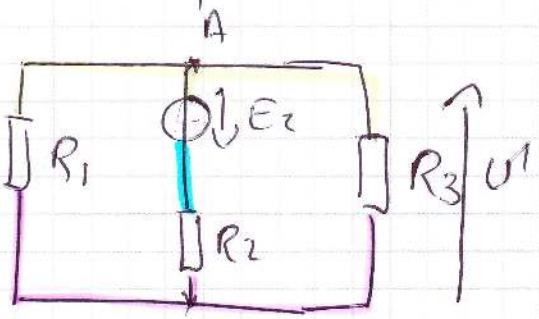
⇒ R_1 et R_2 en série ⇒ $U_1 = \frac{R_1}{R_1+R_2} E$

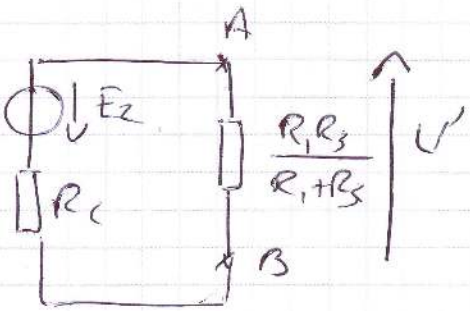
R_3 et R_4 en série ⇒ $U_3 = \frac{R_3}{R_3+R_4} E$

Loi des mailles : $U_1 - U_3 + E_{th} = 0$

$$\boxed{E_{th} = U_3 - U_1}$$







$$U' = \frac{\frac{R_1 R_3}{R_1+R_3}}{\frac{R_1 R_3}{R_1+R_3} + R_2} E_2$$