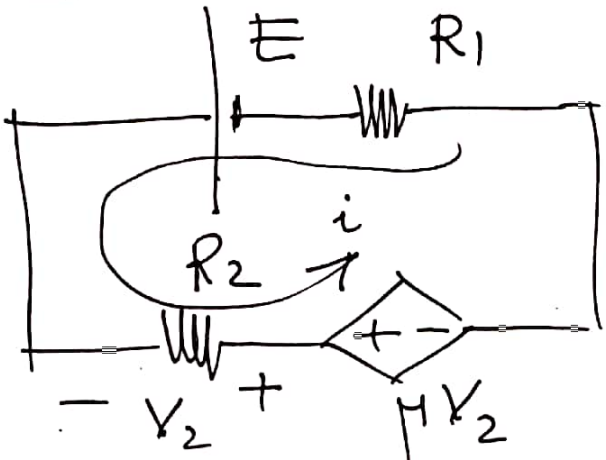
Esempio



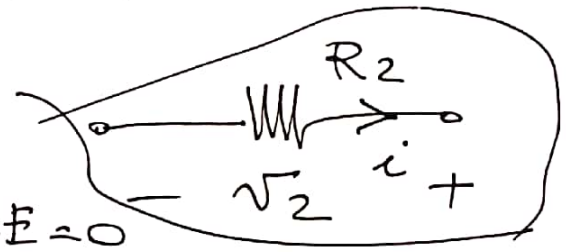
? V_2

Soluzione. Introduco la corrente incognita i

KV: $-V_2 + \mu V_2 + R_1 i - E = 0$

Elimino grandezza di controllo V_2:

$$V_2 = -R_2 i$$



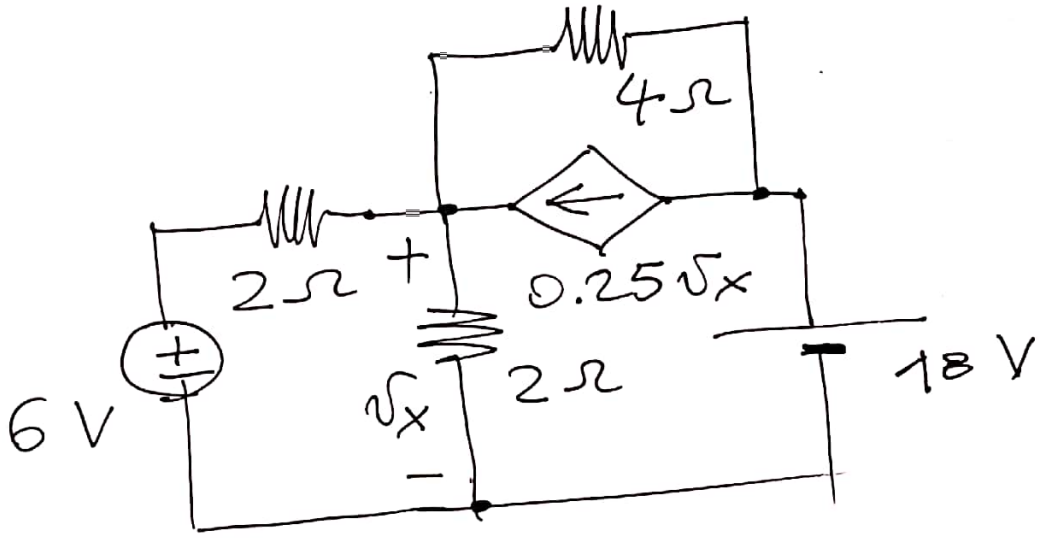
$$R_2 i - \mu R_2 i + R_1 i - E = 0$$

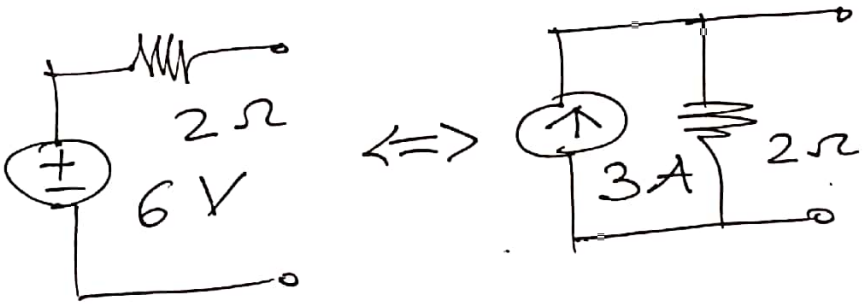
$$[(1-\mu)R_2 + R_1]\, i = E \Rightarrow$$

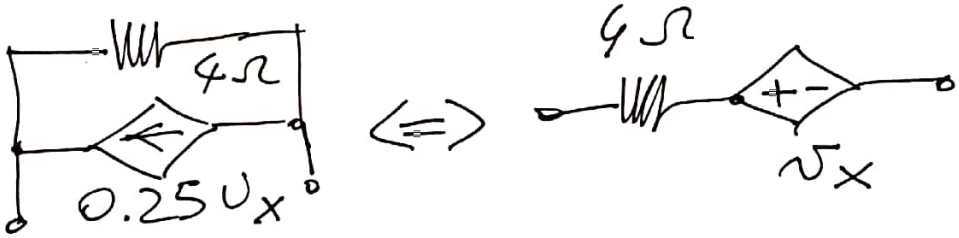
$$i = \frac{E}{(1-\mu)R_2 + R_1} \Rightarrow$$

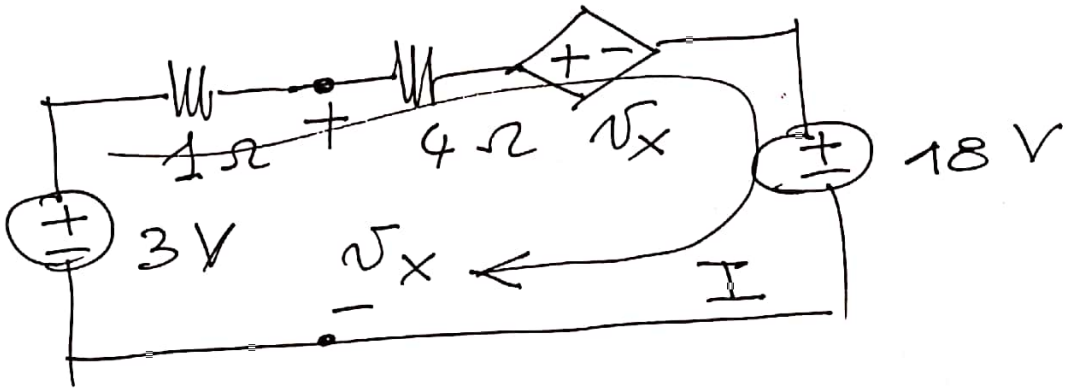
$$V_2 = \frac{R_2 E}{(\mu-1)R_2 - R_1}.$$

Esempio: Calcolare v_x usando equivalenze fra generatori.

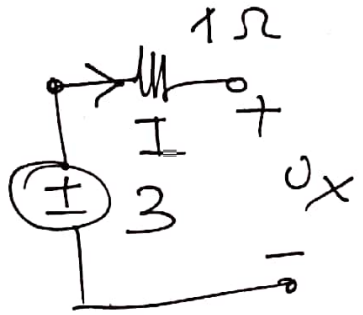








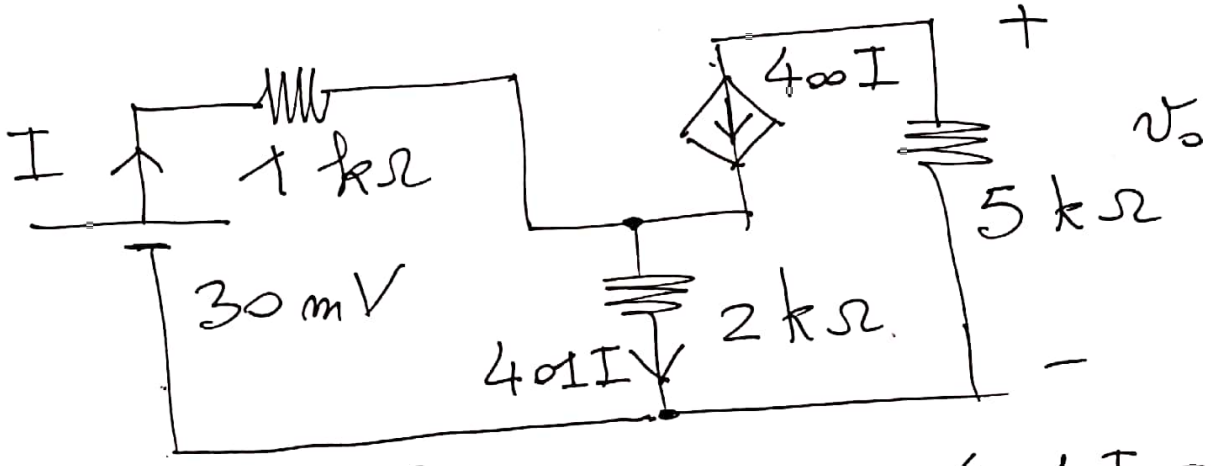
$$\begin{cases} 3 = 5I + v_x + 18 \\ v_x = -I + 3 \end{cases}$$



- 2 eq.ni in 2 incognite
- risolvendo

$$v_x = \frac{15}{2} \text{ Volt.}$$

Esempio: Determinare v_o per il circuito a transistor.



kV: $30 \times 10^{-3} = 1000\, I + 2000 \times 401 \times I =$

$= 803000\, I \Rightarrow$

$I = 3.73 \times 10^{-8}$ Ampère

$v_o = -5000 \times 400 \times I = -0.075\ V =$

$= -75\ mV$