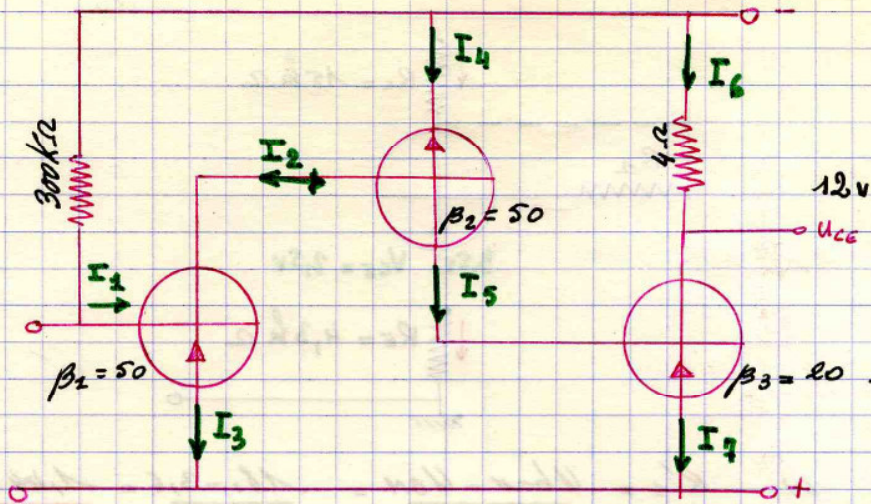


Exercice 5.



$$I_1 = \frac{12}{300} = \underline{0,04 \text{ mA}}$$

$$I_2 = \beta_1 \cdot I_1 = 50 \times 0,04 = \underline{2 \text{ mA}}$$

$$I_3 = I_1 + I_2 = 2,04 \text{ mA}$$

$$I_5 = \beta_2 \cdot I_2 = 50 \times 2 = \underline{100 \text{ mA}}$$

$$I_4 = I_5 + I_2 = 102 \text{ mA}$$

$$I_6 = \beta_3 \cdot I_5 = 20 \times 100 = 2000 \text{ mA} = \underline{2 \text{ A}}$$

$$I_7 = I_6 + I_5 = 2000 + 100 = 2,1 \text{ A}$$

Calculons U_{CE} sur le dernier transistor:

$$U_{CE} = U_{\text{batt}} - R_C \cdot I_C = U_{\text{batt}} - I_C \cdot R_C$$

$$U_{CE} = 12 - (4 \times 2) = 12 - 8 = \underline{4 \text{ V}}$$