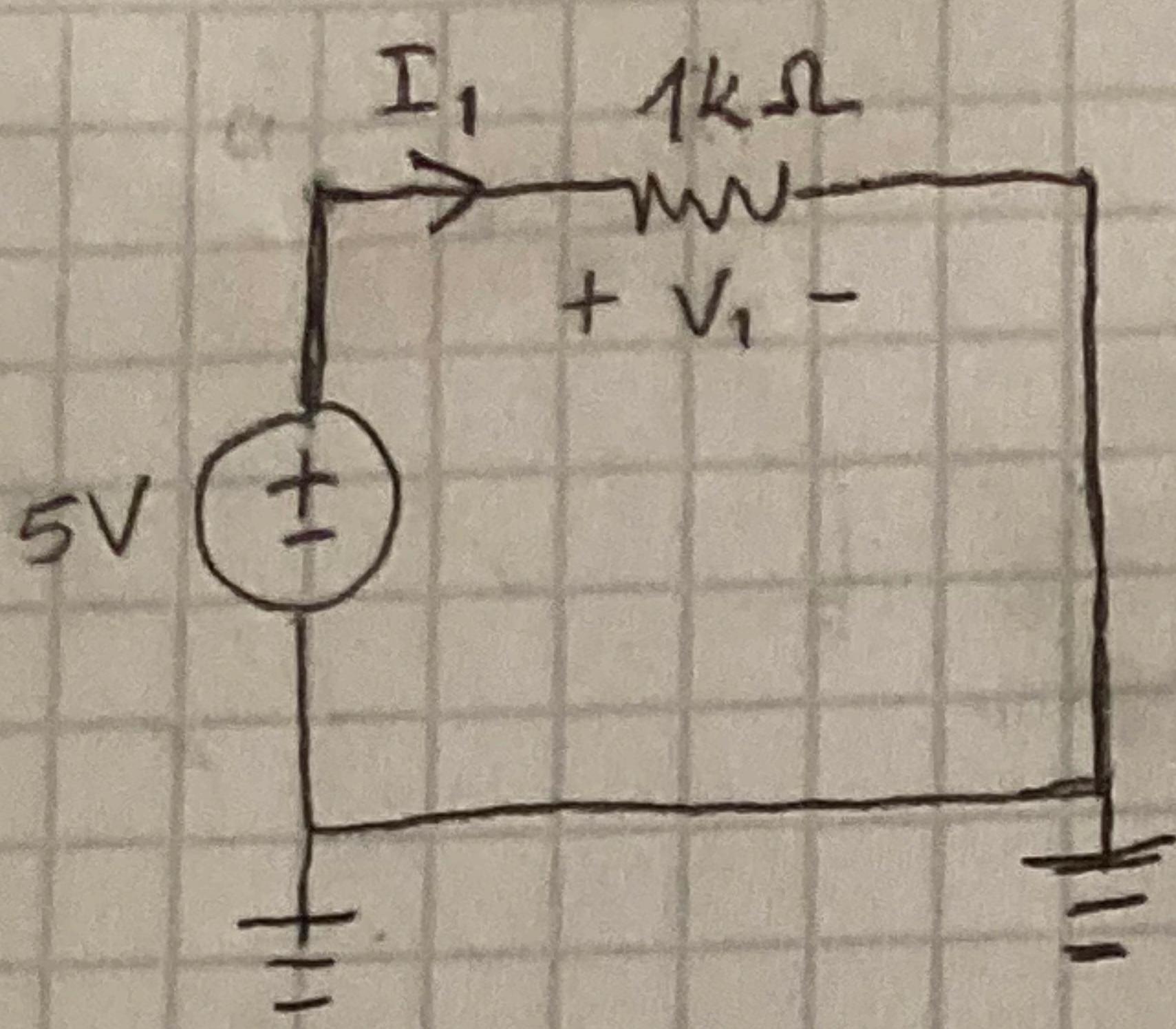


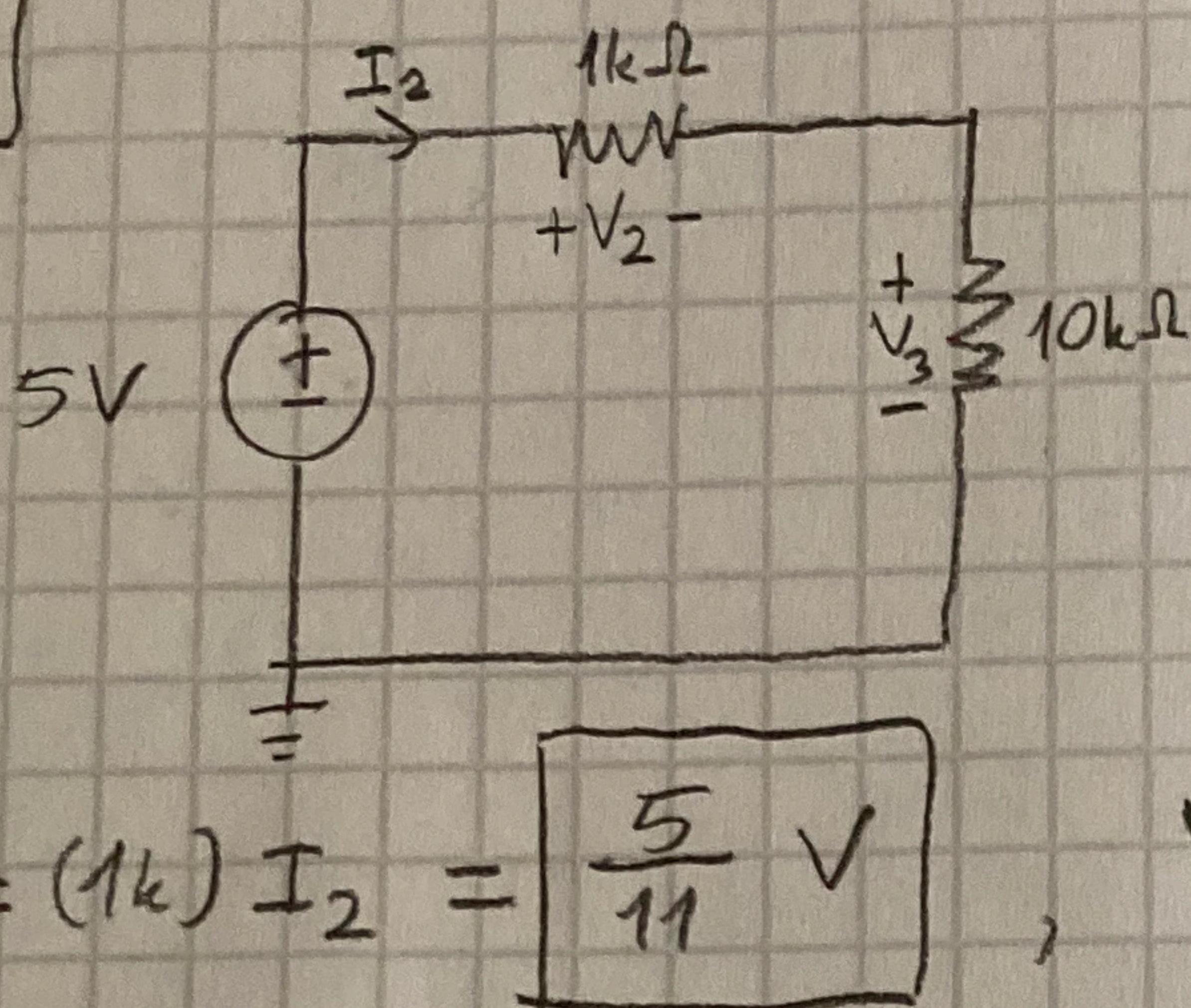
1.1



$$\text{KVL: } -5 + V_1 = 0 \Rightarrow V_1 = 5 \text{ V}$$

$$V_1 = (1k) I_1 \Rightarrow I_1 = 5 \text{ mA}$$

1.2



$$V_2 = (1k) I_2 = \frac{5}{11} \text{ V}$$

$$\text{KVL: } -5 + V_2 + V_3 = 0$$

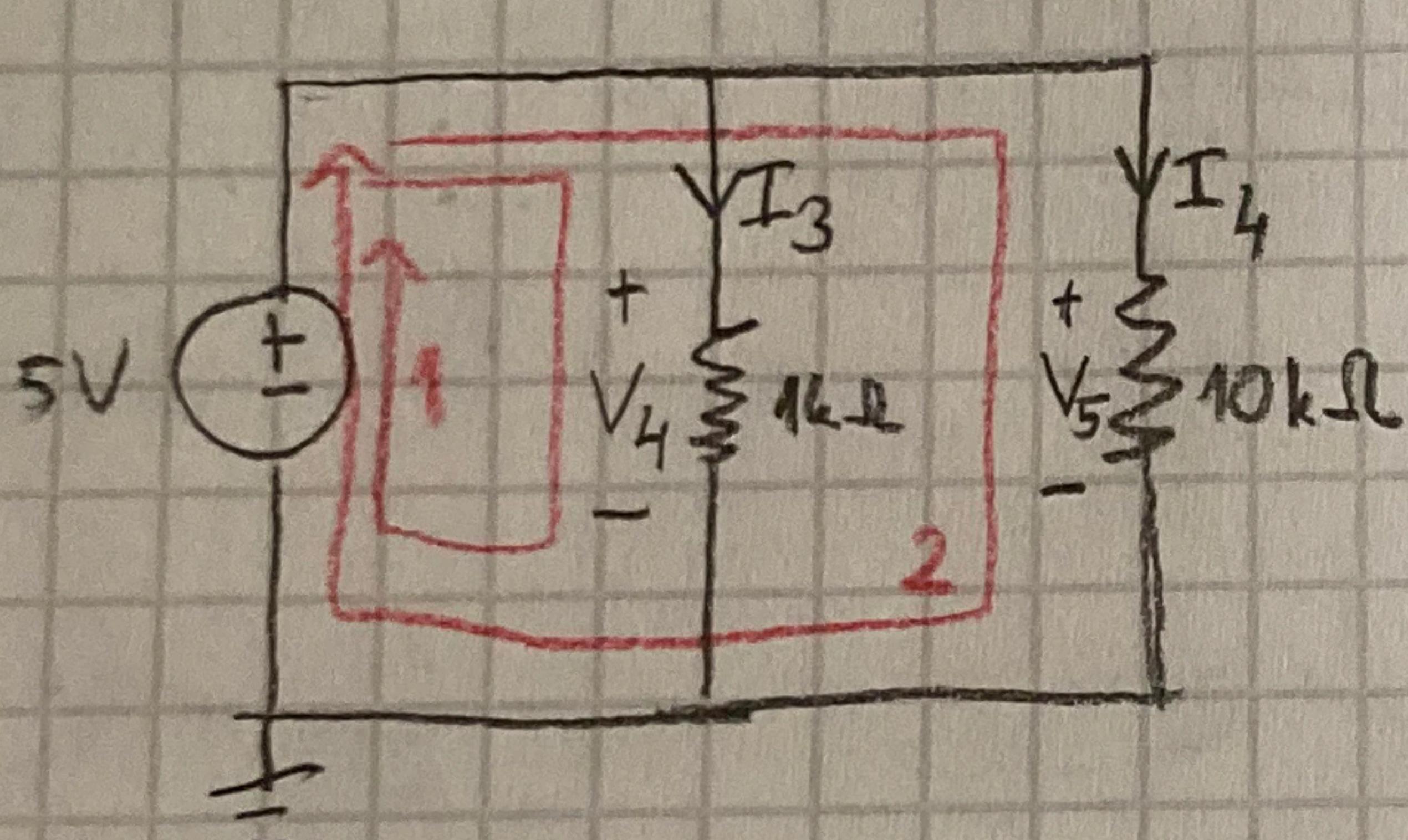
$$V_2 = (1k) I_2, V_3 = (10k) I_2$$

$$\Rightarrow -5 + (1k) I_2 + (10k) I_2 = 0$$

$$\Rightarrow I_2 = \frac{5}{11} \text{ mA}$$

$$V_3 = (10k) I_2 = \frac{50}{11} \text{ V}$$

1.3



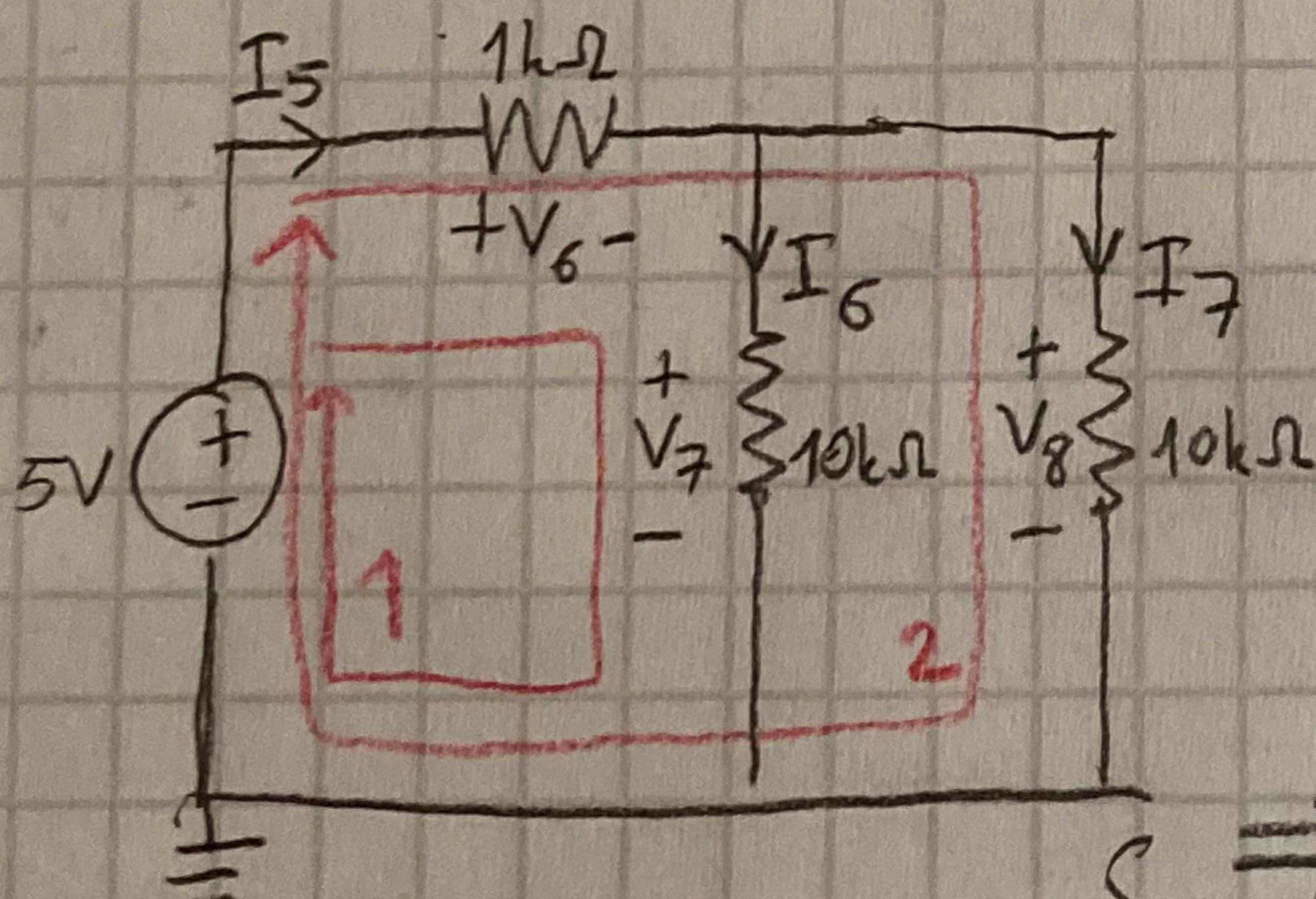
$$\text{KVL 1: } -5 + V_4 = 0 \Rightarrow V_4 = 5 \text{ V}$$

$$V_4 = I_3 (1k) \Rightarrow I_3 = 5 \text{ mA}$$

$$\text{KVL 2: } -5 + V_5 = 0 \Rightarrow V_5 = 5 \text{ V}$$

$$V_5 = (10k) I_4 \Rightarrow I_4 = 0.5 \text{ mA}$$

1.4



$$\text{KCL: } I_5 = I_6 + I_7$$

$$\text{KVL 1: } -5 + (1k) I_5 + (10k) I_6 = 0$$

$$\text{KVL 2: } -5 + (1k) I_5 + (10k) I_7 = 0$$

$$\Rightarrow I_6 = I_7 \Rightarrow I_5 = 2I_6 = 2I_7$$

$$\Rightarrow -5 + (1k) 2I_6 + (10k) I_6 = 0$$

$$\Rightarrow (12k) I_6 = 5 \Rightarrow I_6 = I_7 = \frac{5}{12} \text{ mA}$$

$$\Rightarrow I_5 = \frac{5}{6} \text{ mA}$$

$$V_6 = (1k) I_5 = \frac{5}{6} \text{ V}$$

$$V_7 = (10k) I_6 = \frac{25}{6} \text{ V}$$

$$V_8 = (10k) I_7 = \frac{25}{6} \text{ V}$$