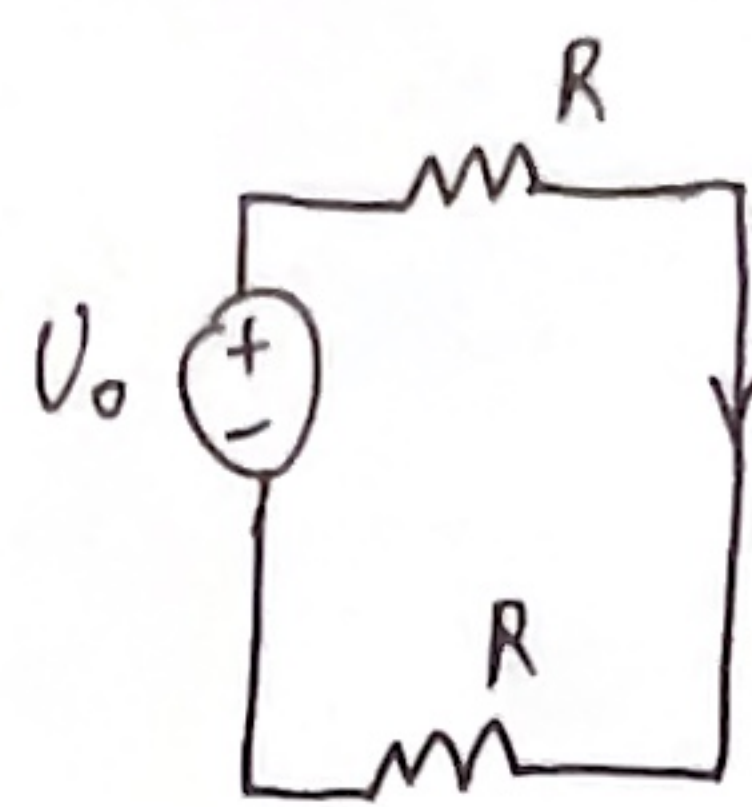
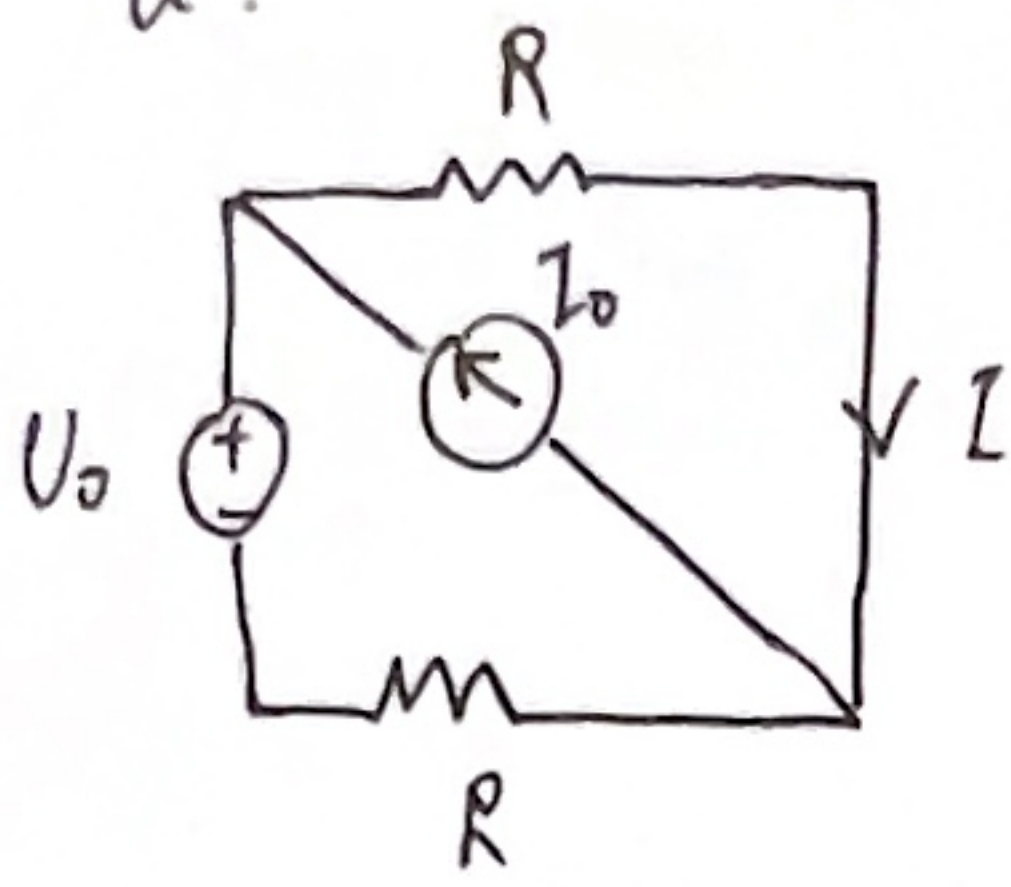


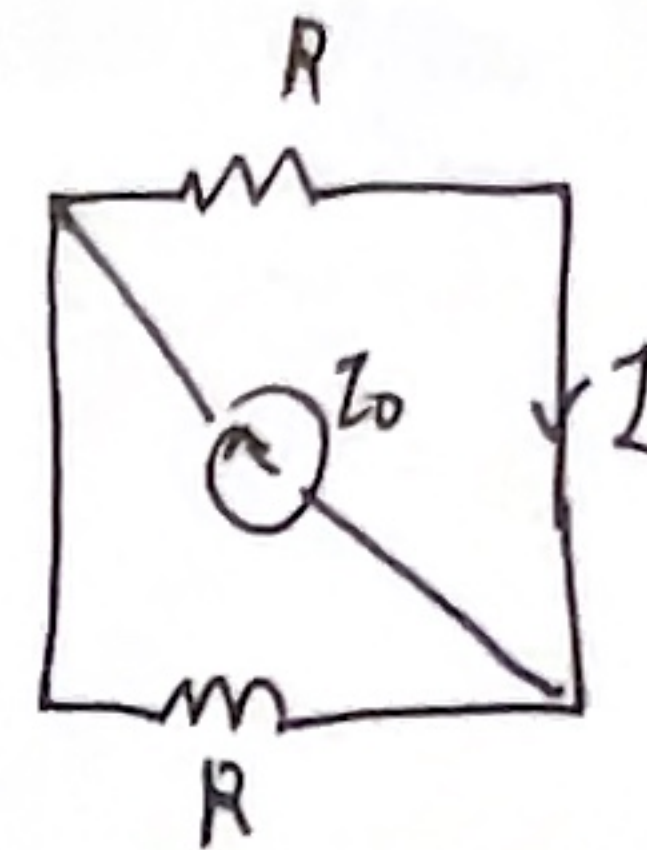
Aufgabe 1

$$U_0 = 12V, I_0 = 50mA, R = 10\Omega, \# 1$$

a.



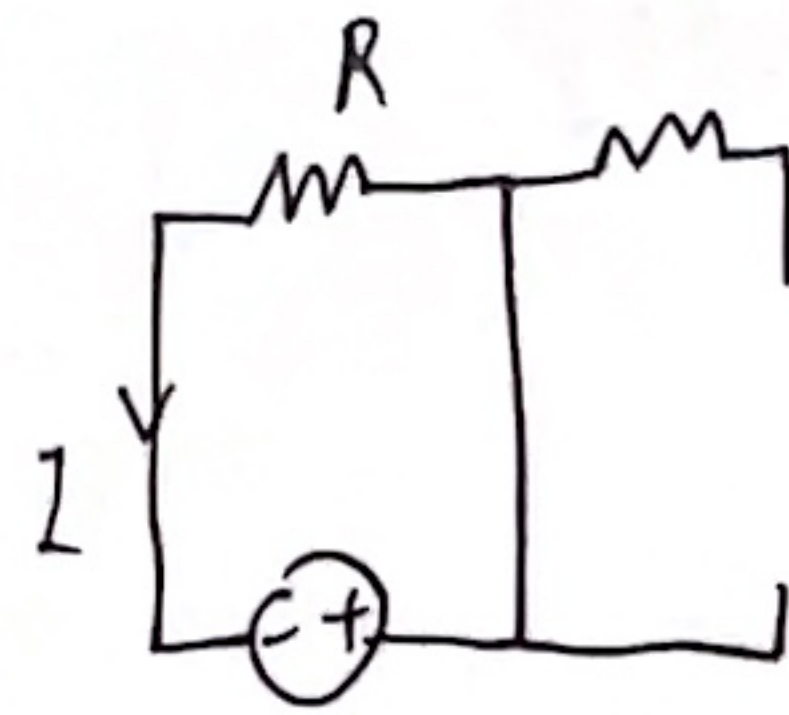
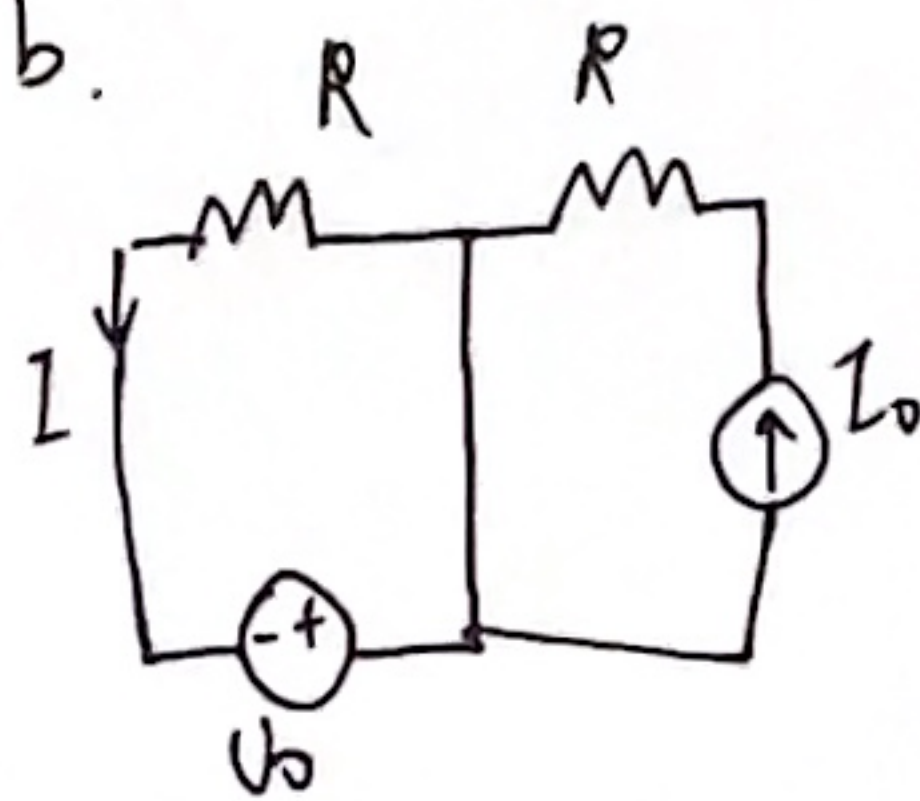
$$I_1 = \frac{U_0}{2R} = \frac{12V}{20\Omega} = 0.6A$$



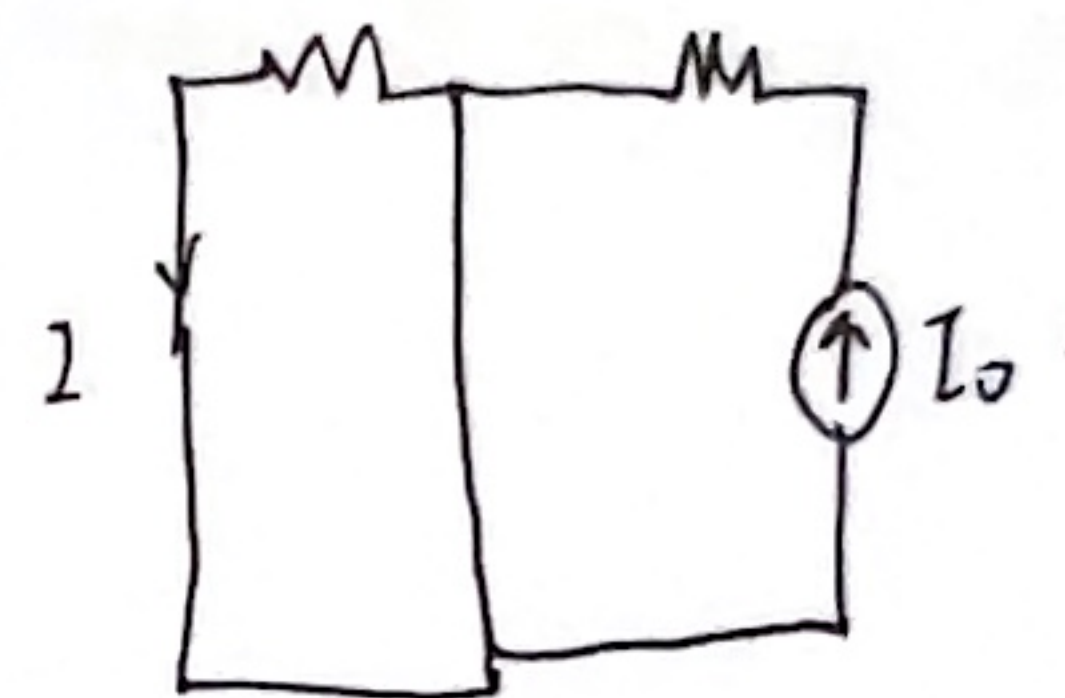
$$I_2 = \frac{1}{2} I_0 = 25mA$$

$$I = I_1 + I_2 = 625mA \quad \checkmark$$

b.



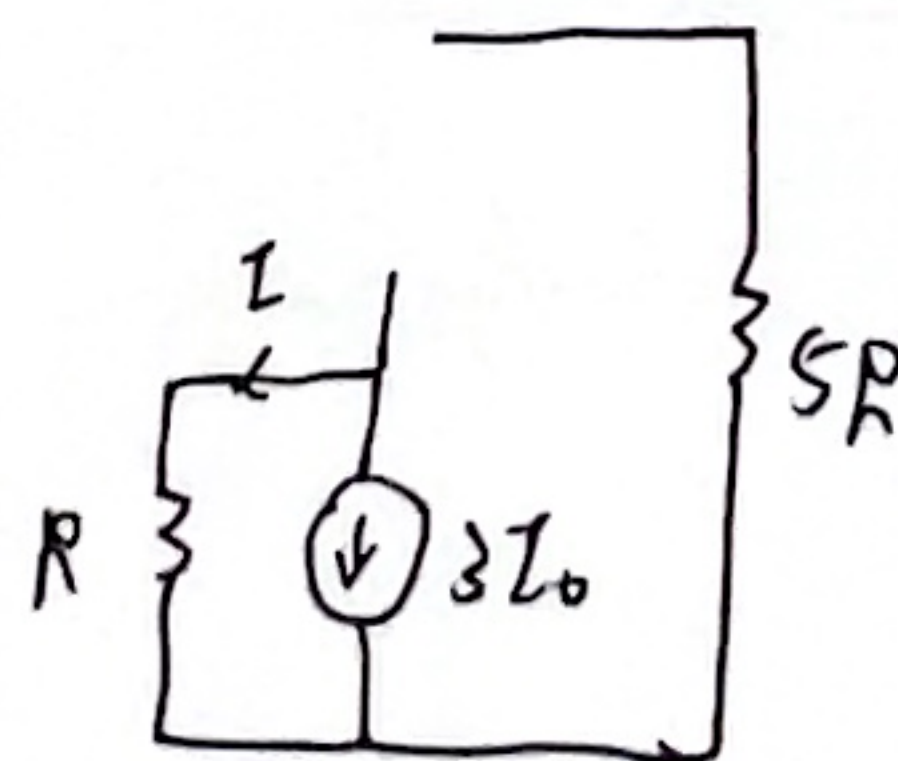
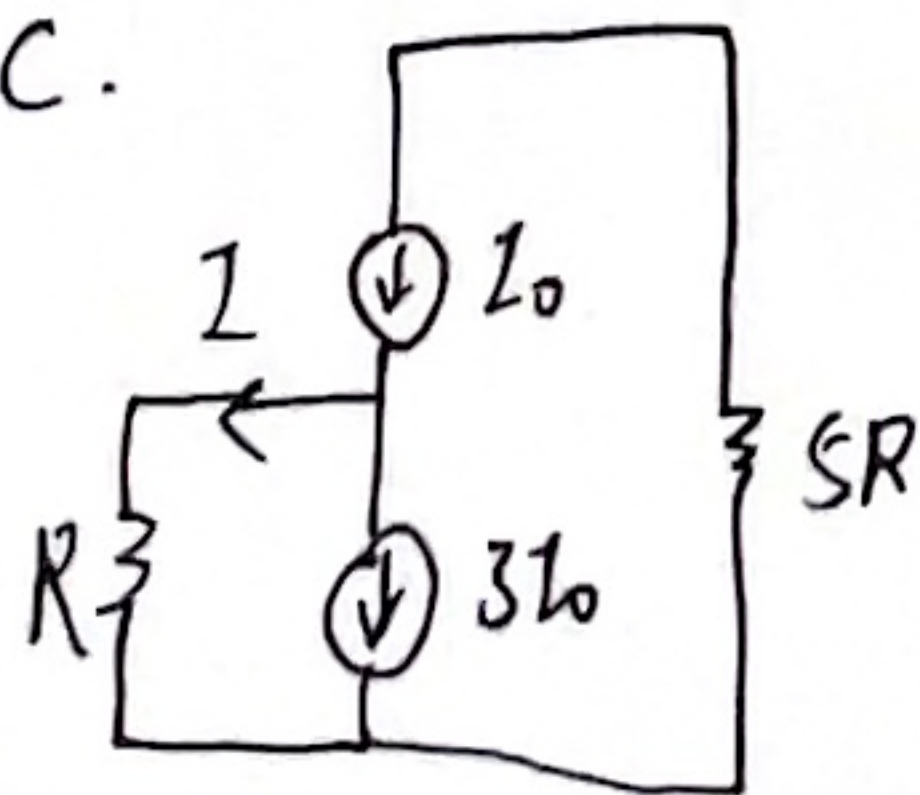
$$I_1 = \frac{U_0}{R} = \frac{12V}{10\Omega} = 1.2A$$



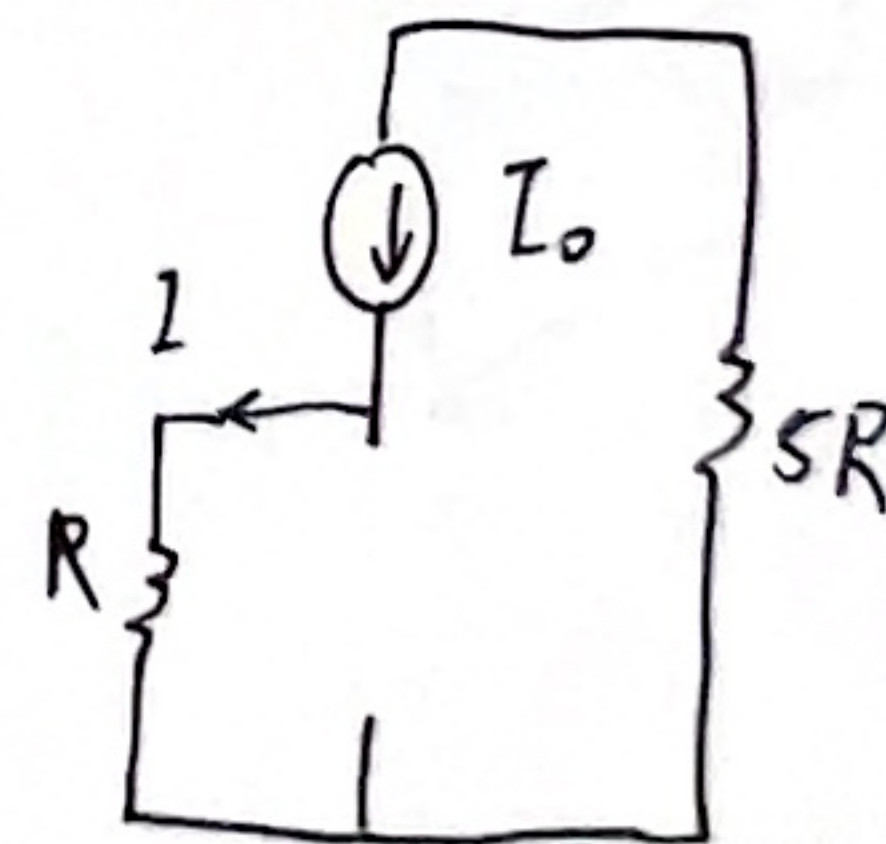
$$I_2 = 0A$$

$$I = 1.2A \quad \checkmark$$

c.



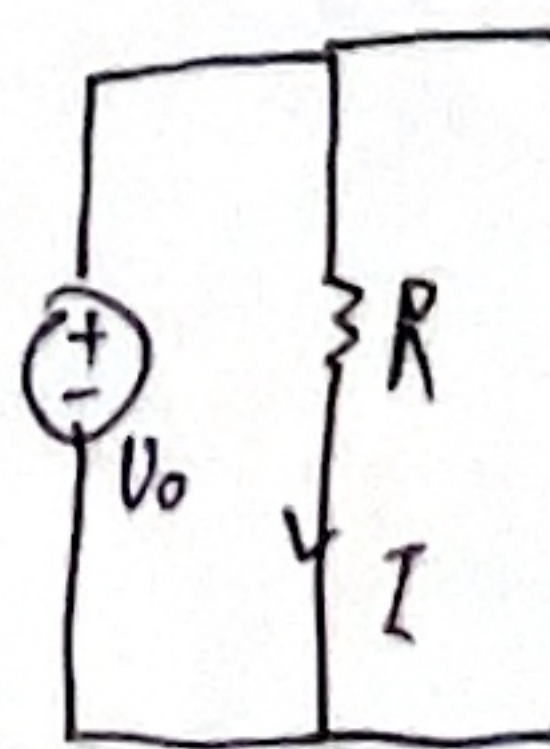
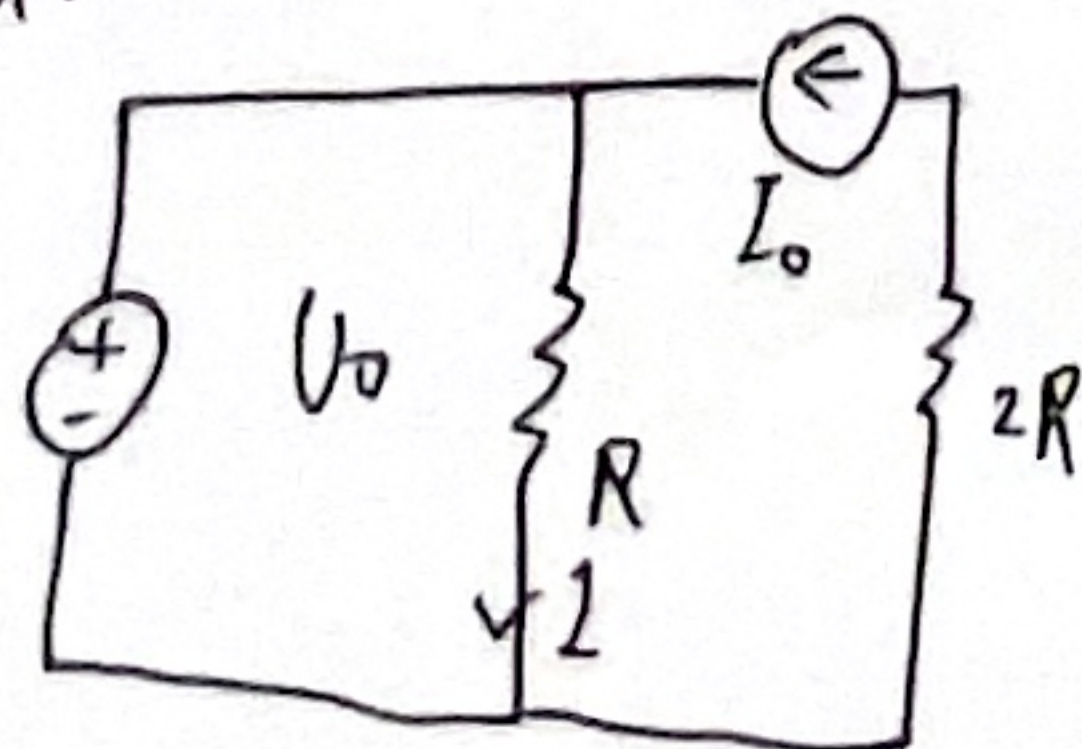
$$I_1 = -3I_0 = -150mA$$



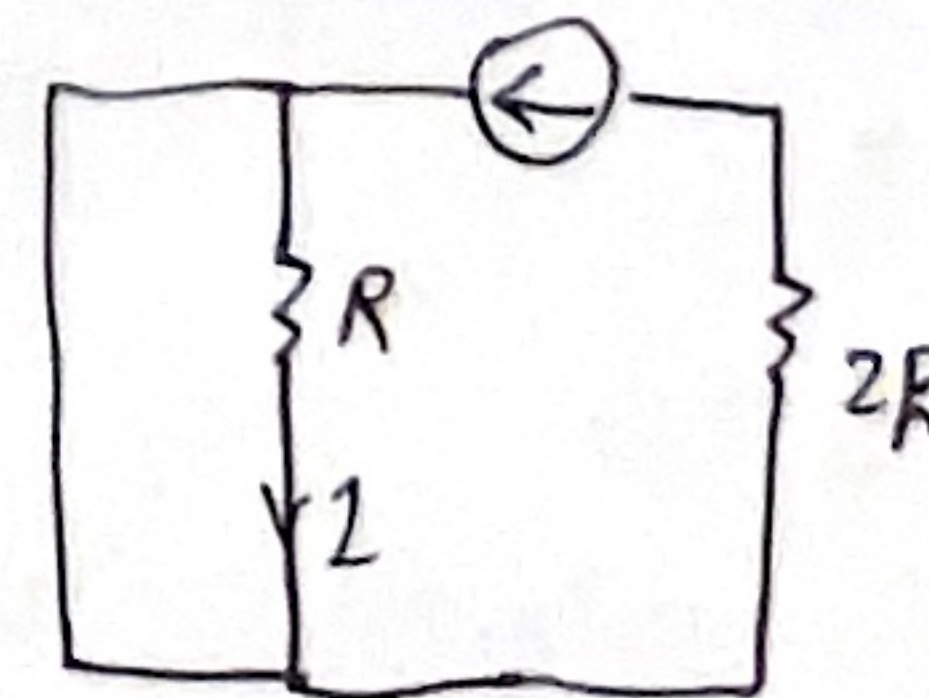
$$I_2 = I_0 = 50mA$$

$$I = -100mA = -0.1A \quad \checkmark$$

d.



$$I_1 = \frac{U_0}{R} = \frac{12V}{10\Omega} = 1.2A$$



$$I_2 = 0A$$

$$I_2 = 0A$$

$$I = 1.2A \quad \checkmark$$