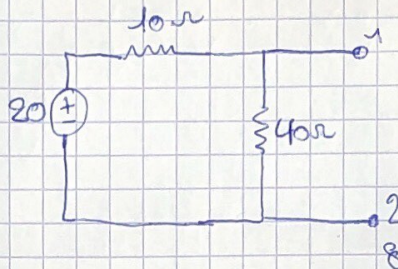
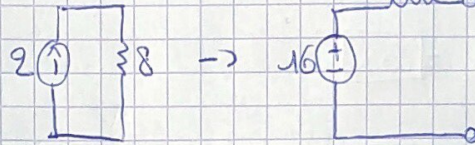


Exercice Thévenin et Norton

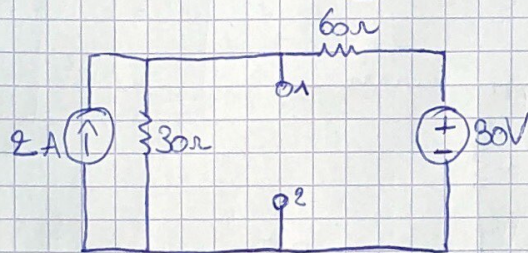
1)



$$R_{eq} = 10 // 40 = 8\Omega$$

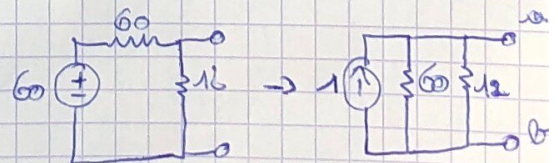
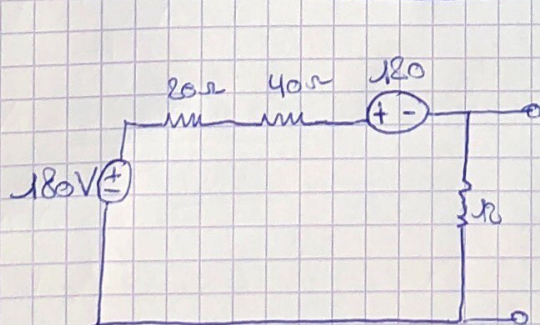
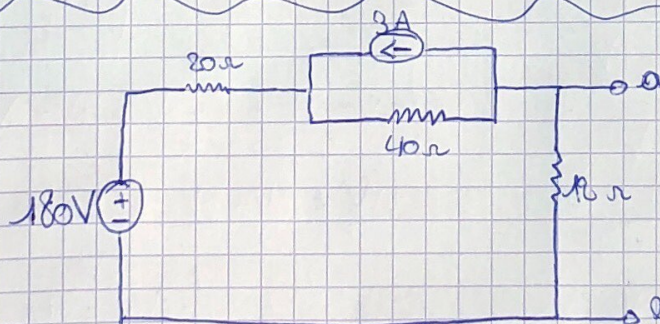
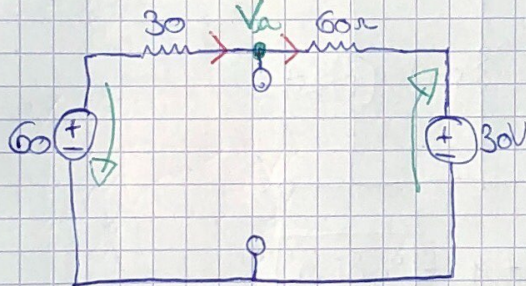


$$V_{th} = 16V$$



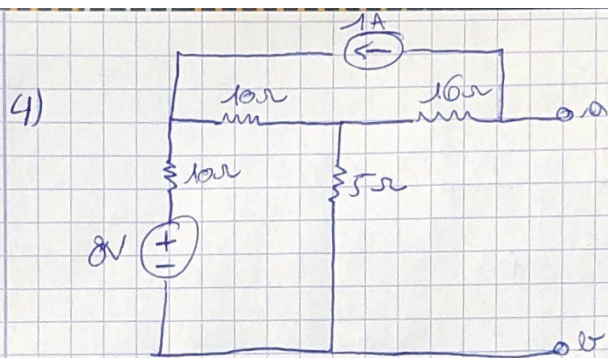
$$\frac{60 - V_a}{30} = \frac{V_a - 30}{60}$$

$$\begin{aligned} 120 - 2V_a &= V_a - 30 \\ -3V_a &= -150 \\ V_a &= 50V \end{aligned}$$



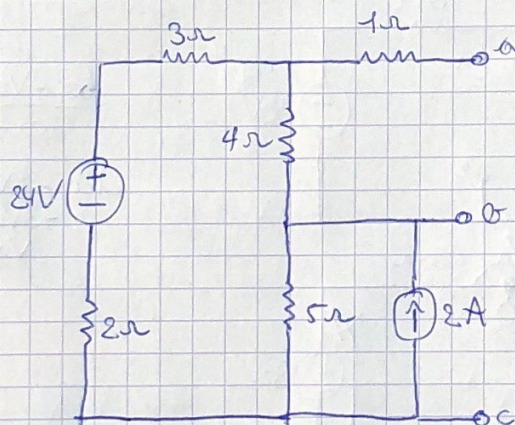
$$I_N = \frac{60}{60 + 12} = 0.83A$$

$$I_N = 1A \Rightarrow 1000mA$$



$$R_{eq} = (10 + 10) // 5 + 16 = 20\Omega$$

5)



$$R_{eq} = (5 + 2 + 3) // 4 + 1 = 3,85\Omega$$