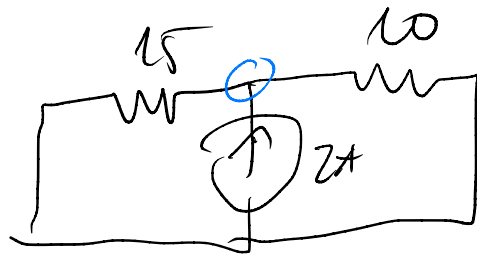
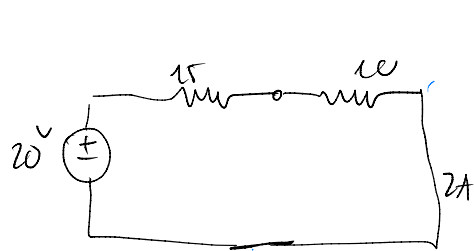


Ohm Law
KVL
Voltage - Divider

$$15i_a - 20 + 10i_b + 25 = 0$$

$$\Rightarrow \begin{cases} 15i_a + 10i_b = -5 \\ i_b - i_a = 2 \end{cases} \Rightarrow \begin{cases} i_a = 1 \text{ A} \\ i_b = -1 \text{ A} \end{cases}$$

$$V_1 = 35 \text{ V}$$



$$\Rightarrow V_1' = \frac{20 \times 10}{15 + 10} = 8$$

$$V_1'' = 2 \times \frac{15 \times 10}{15 + 10} = 12$$

Question 2:

