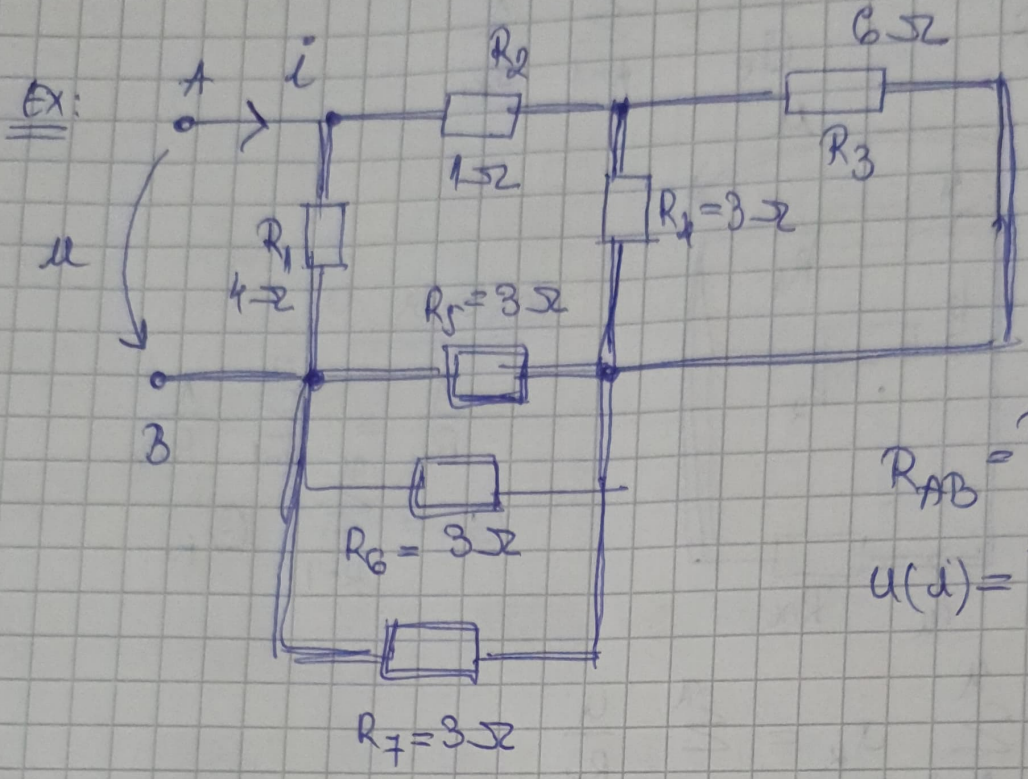
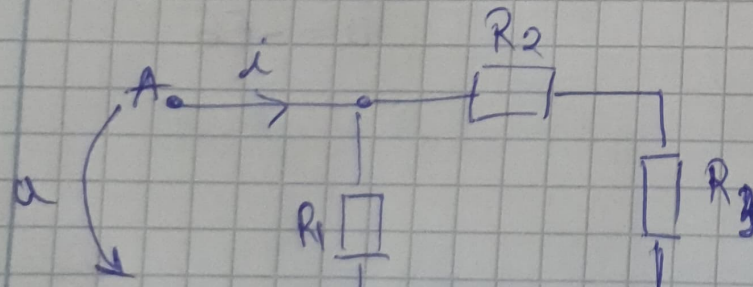
Ex:



$R_{AB} = ?$

$u(i) = ?$

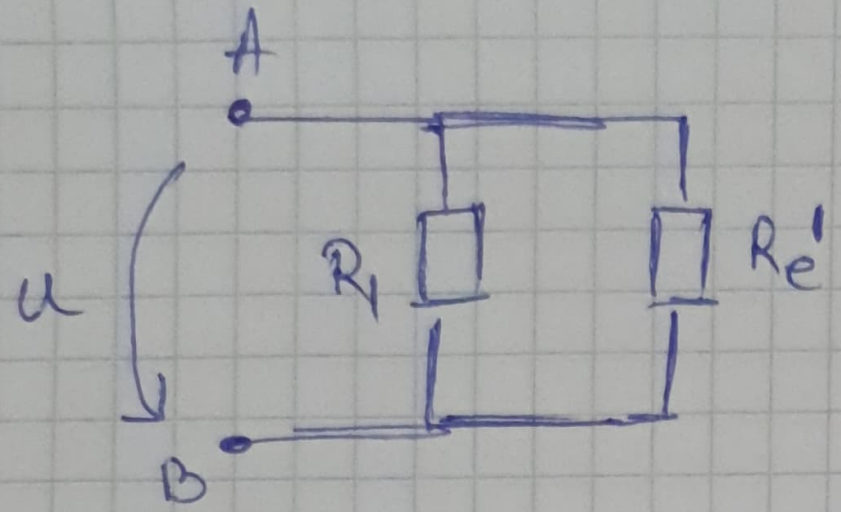
$$R_{43} = \frac{R_4 \cdot R_3}{R_4 + R_3} = \frac{36}{9} = 2\,\Omega$$



$$\frac{1}{R_e} = \frac{1}{R_5} + \frac{1}{R_6} + \frac{1}{R_7} =$$

$$\Rightarrow \frac{1}{R_e} = \frac{1}{3} + \frac{1}{3} + \frac{1}{3} \Rightarrow$$

$$\Rightarrow \frac{1}{R_e} = 3 \cdot \frac{1}{3} = 1\,\Omega \Rightarrow R_e = 1\,\Omega$$



$$R_e' = R_2 + R_{34} + R_e = 4 + 2 + 1 = 7\,\Omega.$$

$$R_{ef} = \frac{R_1 \cdot R_e'}{R_1 + R_e'} = \frac{4 \cdot 4}{8} = 2\,\Omega. \quad \Rightarrow R_{AB} = 2\,\Omega$$

$$R_{AB} = 2\,\Omega$$

$$u(i) = i \cdot R_{AB} = 2i$$