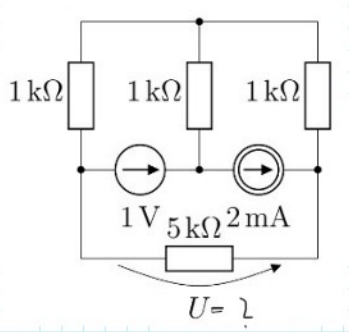
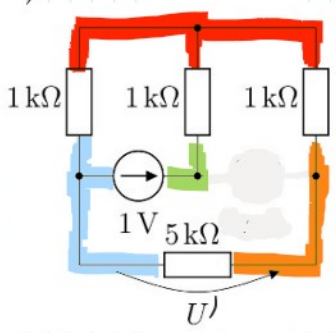
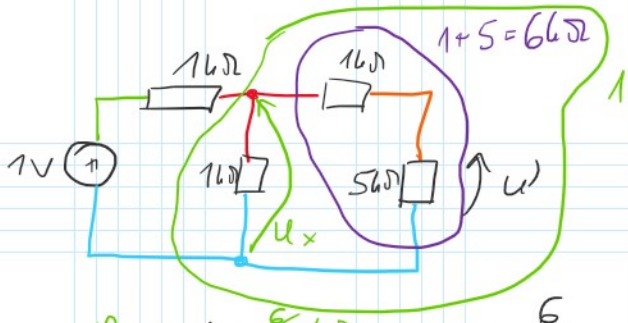
Z1

poniedziałek, 23 sierpnia 2021 13:12



E)



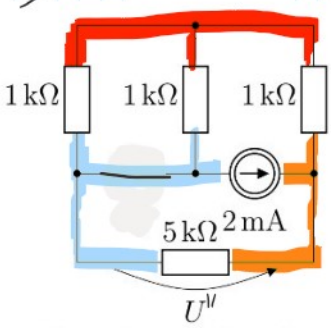


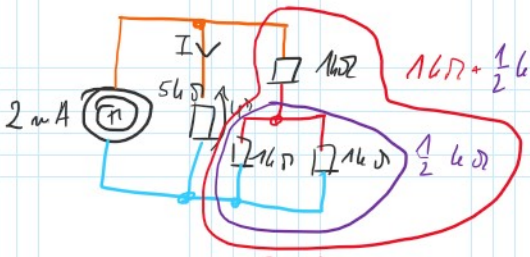
$1\,k\Omega \| 6\,k\Omega = \frac{1\cdot 6}{1+6}\,k\Omega = \frac{6}{7}\,k\Omega$

$$U_x = 1V \cdot \frac{\frac{6}{7}k\Omega}{\frac{6}{7}k\Omega + 1k\Omega} = \frac{\frac{6}{7}}{\frac{13}{7}}V = \frac{6}{13}V$$

$$U' = \frac{6}{13}V \cdot \frac{5k\Omega}{5k\Omega + 1k\Omega} = \frac{6}{13}\cdot\frac{5}{6}V = \frac{5}{13}V$$

J)





$$I = 2\,mA \cdot \frac{\frac{3}{2}k\Omega}{\frac{3}{2}k\Omega + 5k\Omega} = 2\,mA\,\frac{\frac{3}{2}}{\frac{13}{2}} = \frac{6}{13}\,mA$$

$$U'' = I \cdot 5k\Omega = \frac{30}{13}V$$

$$U = U' - U'' = \frac{5}{13}V + \frac{30}{13}V = \frac{35}{13}V$$