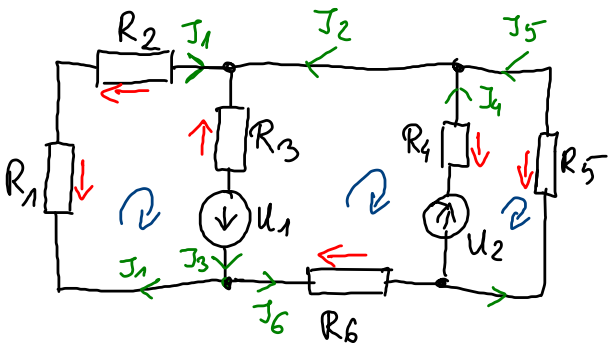
Ćwiczenia z metody oczkowej

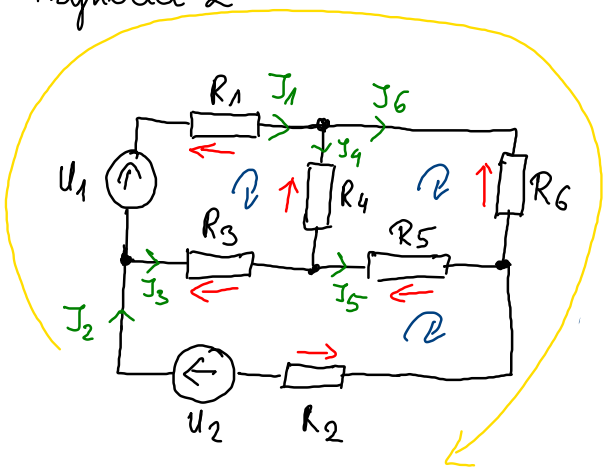
Przykład 1



$$J_3 = J_1 + J_2$$
$$J_3 = J_1 + J_6$$
$$J_6 = J_4 + J_5$$
$$J_5 + J_4 = J_2$$

$$U_1 - R_1 J_1 - R_2 J_1 - R_3 J_3 = 0$$
$$-U_1 - U_2 + R_3 J_3 + R_4 J_4 + R_6 J_6 = 0$$
$$U_2 - R_4 J_4 + R_5 J_5 = 0$$

Przykład 2

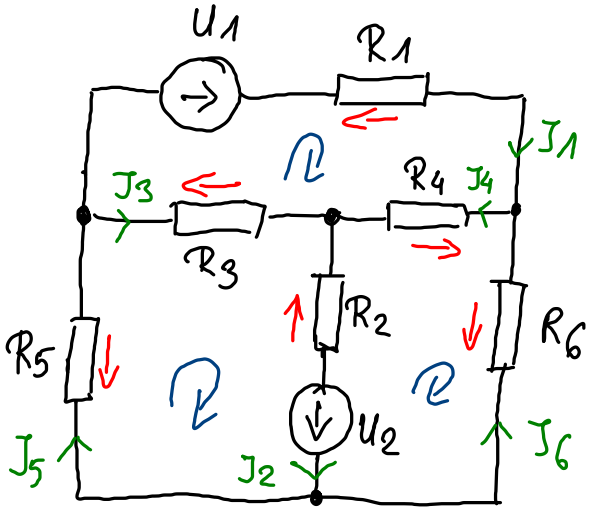


$$J_1 = J_6 + J_4$$
$$J_5 = J_3 + J_4$$
$$J_2 = J_3 + J_1$$
$$J_2 = J_5 + J_6$$

$$U_1 - R_1 J_1 - J_4 R_4 + R_3 J_3 = 0$$
$$U_2 - R_3 J_3 - J_5 R_5 - R_2 J_2 = 0$$
$$J_4 R_4 - J_6 R_6 + R_5 J_5 = 0$$

$$U_2 + U_1 - R_1 J_1 - R_6 J_6 - R_2 J_2 = 0$$ (dodatkowo dla oczka złożonego z zewnętrznych elementów)

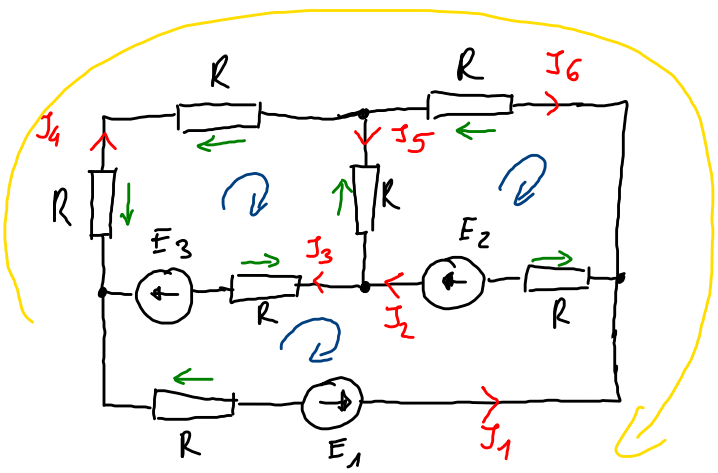
Przykład 3



$$J_2 = J_3 + J_4$$
$$J_5 = J_1 + J_3$$
$$J_4 = J_1 + J_6$$
$$J_2 = J_6 + J_5$$

$$U_1 - R_1 J_1 - R_4 J_4 + R_3 J_3 = 0$$
$$-R_5 J_5 - R_3 J_3 - R_2 J_2 + U_2 = 0$$
$$-U_2 + R_2 J_2 + R_4 J_4 + R_6 J_6 = 0$$

Przykład 4



$$J_2 = J_1 + J_6$$
$$J_2 + J_5 = J_3$$
$$J_3 = J_1 + J_4$$
$$J_4 = J_5 + J_6$$

$$E_3 - 2 \cdot J_1 R - J_5 R - J_3 \cdot R = 0$$
$$E_2 + J_5 \cdot R - J_6 R - J_2 \cdot R = 0$$
$$-(E_1 + E_2 + E_3) + J_2 R + J_3 R + J_1 R = 0$$

$$-E_1 + J_1 R - 2R J_4 - R J_6 = 0$$