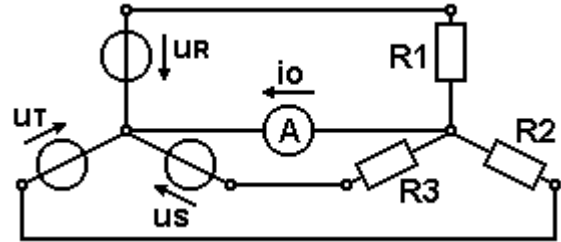


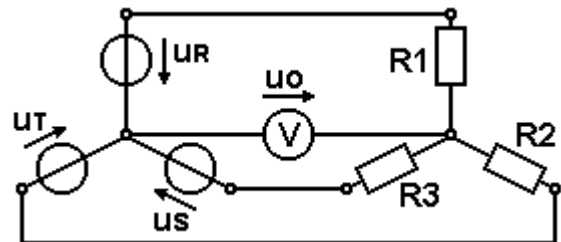
1) Számítsa ki a nulla vezet  n foly    ramot! ($i_o = 0,36 \text{ A}$)

Adatok: $u_R = 18 \text{ V} \angle 0^\circ$
 $u_S = 18 \text{ V} \angle 120^\circ$
 $u_T = 18 \text{ V} \angle 240^\circ$
 $R_1 = 30 \, \Omega$
 $R_2 = 90 \, \Omega$
 $R_3 = 60 \, \Omega$



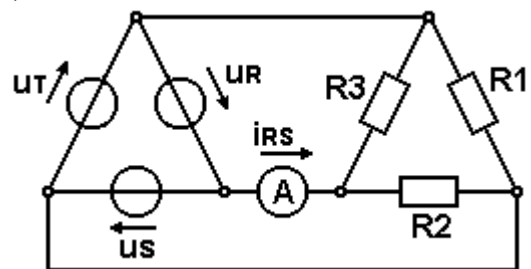
2) Sz m tsa ki a csillagpont eltol d si fesz lts get! ($u_o = 4,88 \text{ V}$)

Adatok: $u_R = 24 \text{ V} \angle 0^\circ$
 $u_S = 24 \text{ V} \angle 120^\circ$
 $u_T = 24 \text{ V} \angle 240^\circ$
 $R_1 = 100 \, \Omega$
 $R_2 = 50 \, \Omega$
 $R_3 = 75 \, \Omega$



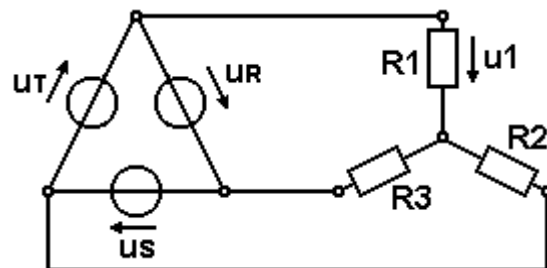
3) Sz m tsa ki az i_{RS} vonali  ramot! ($i_{RS} = 3,04 \text{ A}$)

Adatok: $u_R = 60 \text{ V} \angle 0^\circ$
 $u_S = 60 \text{ V} \angle 240^\circ$
 $u_T = 60 \text{ V} \angle 120^\circ$
 $R_1 = 20 \, \Omega$
 $R_2 = 30 \, \Omega$
 $R_3 = 40 \, \Omega$



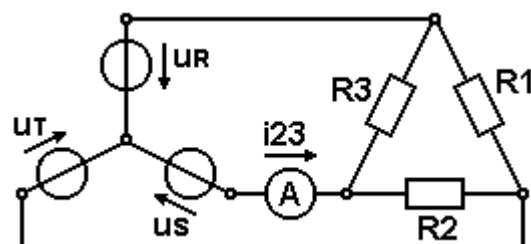
4) Sz m tsa ki az u_1 fesz lts get! ($u_1 = 15,4 \text{ V}$)

Adatok: $u_R = 42 \text{ V} \angle 0^\circ$
 $u_S = 42 \text{ V} \angle 120^\circ$
 $u_T = 42 \text{ V} \angle 240^\circ$
 $R_1 = 100 \, \Omega$
 $R_2 = 200 \, \Omega$
 $R_3 = 500 \, \Omega$



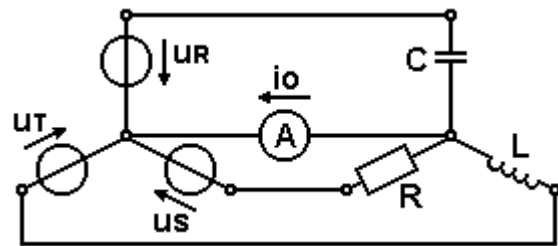
5) Sz m tsa ki az i_{23} vonali  ramot! ($i_{23} = 312 \text{ mA}$)

Adatok: $u_R = 41,6 \text{ V} \angle 0^\circ$
 $u_S = 41,6 \text{ V} \angle 120^\circ$
 $u_T = 41,6 \text{ V} \angle 240^\circ$
 $R_1 = 300 \, \Omega$
 $R_2 = 400 \, \Omega$
 $R_3 = 400 \, \Omega$



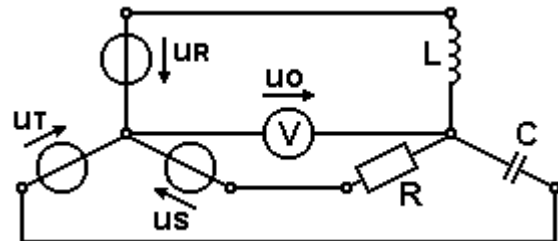
6) Számítsa ki a nulla vezetõn folyó áramot! ($i_o = 1,19 \text{ A}$)

Adatok: $u_R = 12 \text{ V} \angle 0^\circ$
 $u_S = 12 \text{ V} \angle 120^\circ$
 $u_T = 12 \text{ V} \angle 240^\circ$
 $X_C = 40 \Omega$
 $X_L = 20 \Omega$
 $R = 30 \Omega$



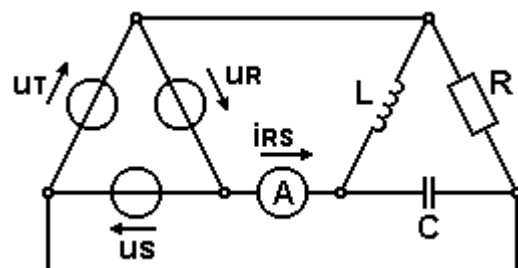
7) Számítsa ki a csillagpont eltolódási feszültséget! ($u_o = 57,4 \text{ V}$)

Adatok: $u_R = 36 \text{ V} \angle 0^\circ$
 $u_S = 36 \text{ V} \angle 120^\circ$
 $u_T = 36 \text{ V} \angle 240^\circ$
 $X_L = 120 \Omega$
 $X_C = 180 \Omega$
 $R = 240 \Omega$



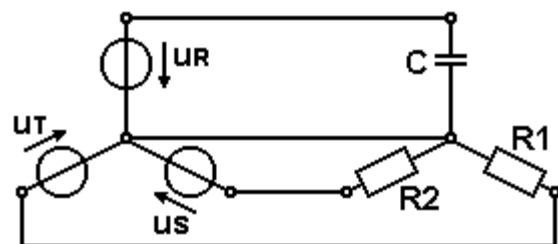
8) Számítsa ki az i_{RS} vonali áramot! ($i_{RS} = 180 \text{ mA}$)

Adatok: $u_R = 18 \text{ V} \angle 0^\circ$
 $u_S = 18 \text{ V} \angle 240^\circ$
 $u_T = 18 \text{ V} \angle 120^\circ$
 $R = 150 \Omega$
 $X_C = 120 \Omega$
 $X_L = 90 \Omega$



9) Számítsa ki a felvett hasznos és meddő teljesítményt! ($P = 150 \text{ W}$; $Q = -62,5 \text{ VAr}$)

Adatok: $u_R = 100 \text{ V} \angle 0^\circ$
 $u_S = 100 \text{ V} \angle 120^\circ$
 $u_T = 100 \text{ V} \angle 240^\circ$
 $X_C = 160 \Omega$
 $R_1 = 100 \Omega$
 $R_2 = 200 \Omega$



10) Számítsa ki a felvett hasznos és meddő teljesítményt! ($P = 285 \text{ W}$; $Q = 76 \text{ VAr}$)

Adatok: $u_R = 190 \text{ V} \angle 0^\circ$
 $u_S = 190 \text{ V} \angle 120^\circ$
 $u_T = 190 \text{ V} \angle 240^\circ$
 $R_1 = 380 \Omega$
 $X_L = 475 \Omega$
 $R_2 = 190 \Omega$

