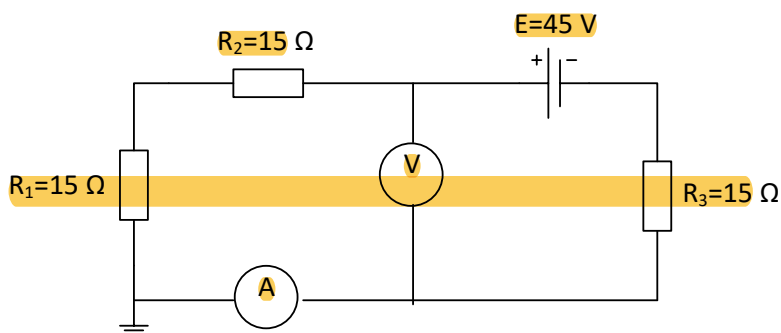


## Innlevering 2, ELE-2501 Introduksjon til elektriske kretser

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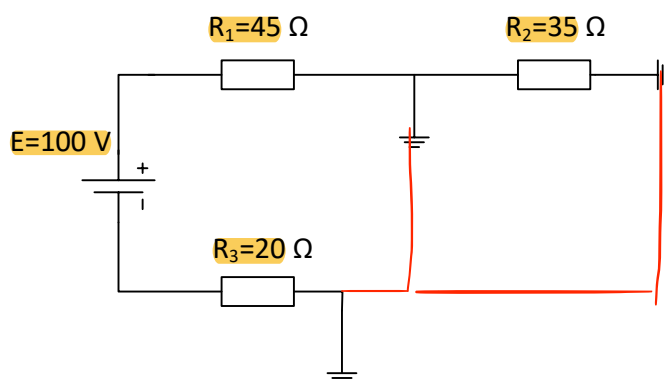
### Oppgave 1

- a) Bestem strømmen og spenningen som måles med amperemeteret og voltmeteret i figur 1.



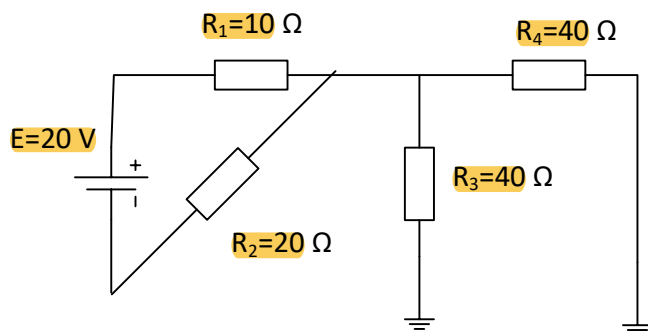
Figur 1

- b) Bestem strømmen gjennom  $R_2$  og  $R_3$  i figur 2:



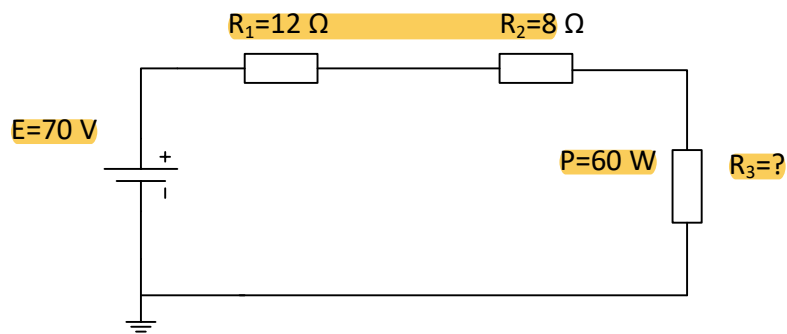
Figur 2

- c) Bestem strømmen gjennom  $R_2$  og  $R_3$  i figur 3.



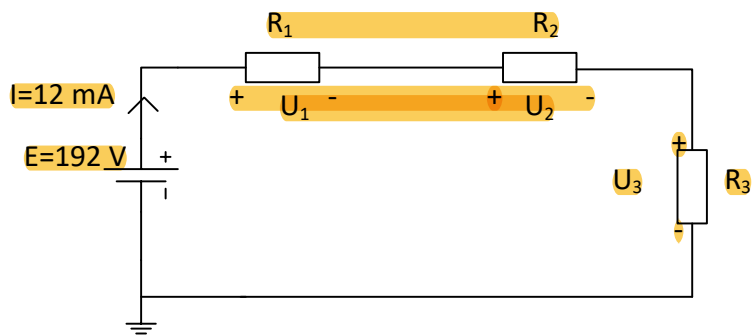
Figur 3

d) Bestem  $R_3$  i figur 4.



Figur 4

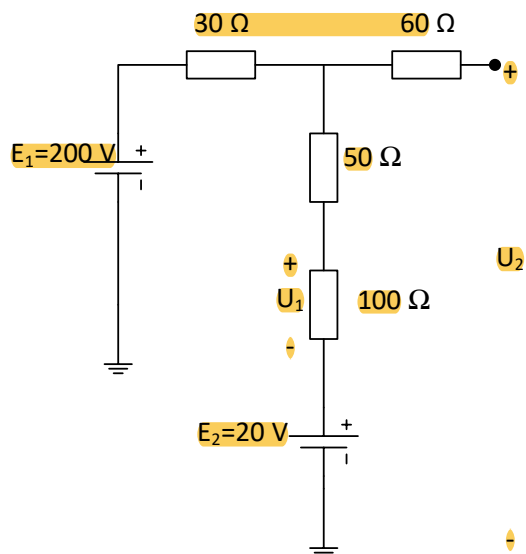
e) Bestem resistansene i figur 5 når  $U_2 = 3U_1$ , og  $U_{R3} = 4U_1$ .



Figur 5

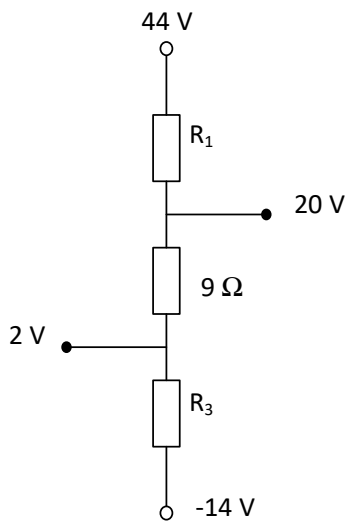
## Oppgave 2

a) Bestem spenningene,  $U_1$  og  $U_2$ , uten å beregne strømmen (figur 6):



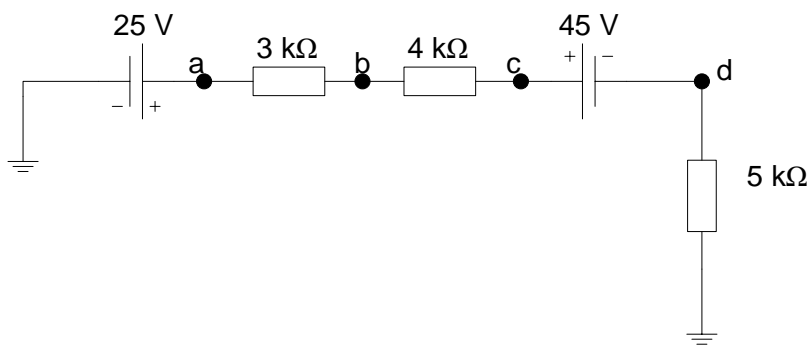
Figur 6

b) Bestem  $R_1$  og  $R_3$  i figur 7.



Figur 7

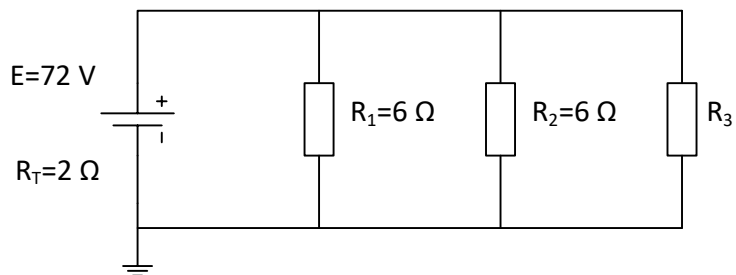
c) Bestem potensialene i a, b, c, d og e i figur 8. Bestem spenningene  $U_{ac}$  og  $U_{cb}$ .



Figur 8

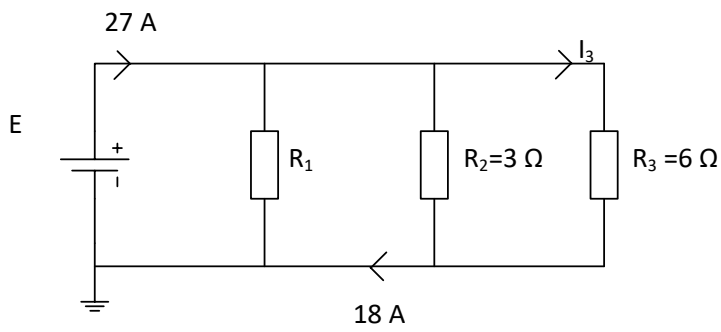
### Oppgave 3

a) Bestem effekten som utvikles i  $R_3$  når  $R_T$  er  $2\ \Omega$  (figur 9).



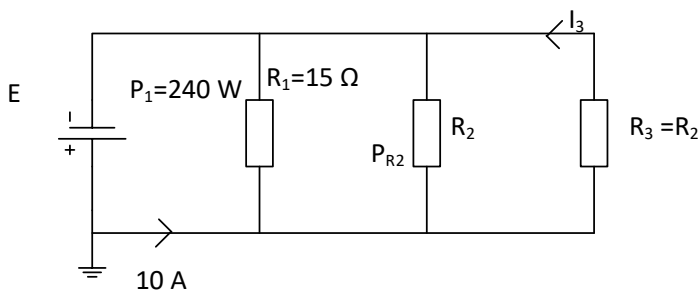
Figur 9

b) Bestem  $E$ ,  $R_1$  og  $I_3$  fra figur 10.



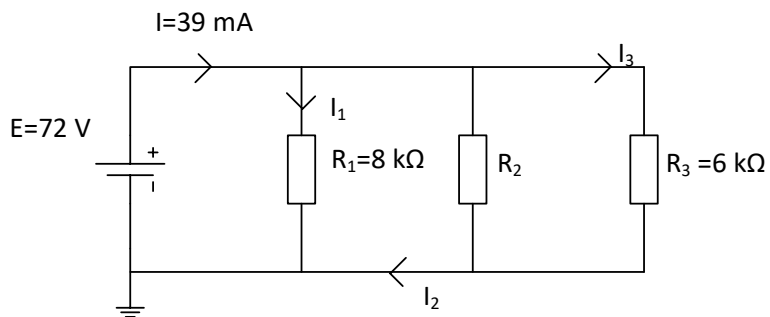
Figur 10

c) Bestem  $E$ ,  $I_3$ ,  $R_2$ ,  $R_3$  og  $P_{R2}$  i figur 11.



Figur 11

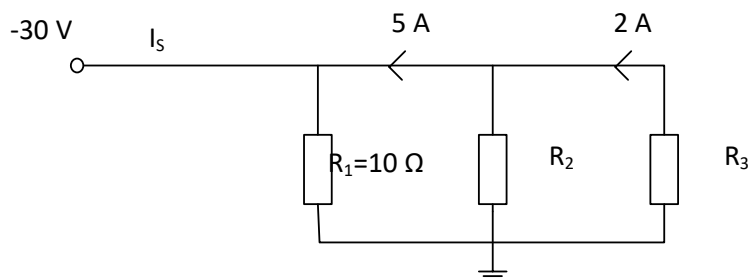
d) Bestem  $I_1$ ,  $I_2$ ,  $R_2$  og  $I_3$  i figur 12.



Figur 12

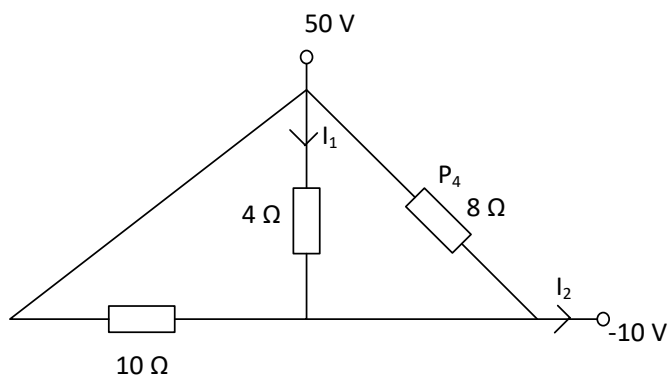
#### Oppgave 4

a) Bestem  $R_2$ ,  $R_3$  og  $I_5$  i figur 13.



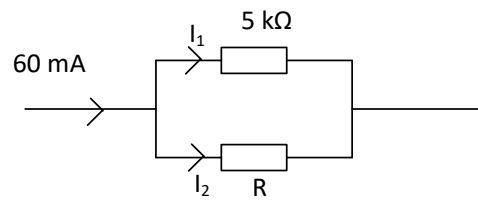
Figur 13

b) Bestem  $I_1$ ,  $I_2$  og  $P_4$  i figur 14.



Figur 14

c) Bestem  $R$ ,  $I_1$  og  $I_2$  i figur 15 når  $I_1 = 3I_2$ .



Figur 15