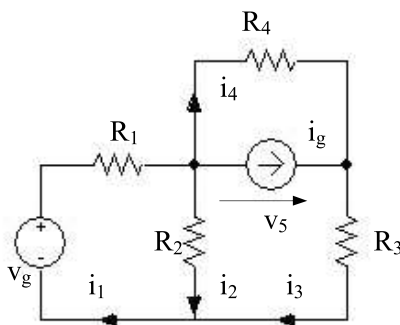




**Esercitazione 1**

**Esercizio 7:**

Calcolare  $i_1, i_2, i_3, i_4, v_5$

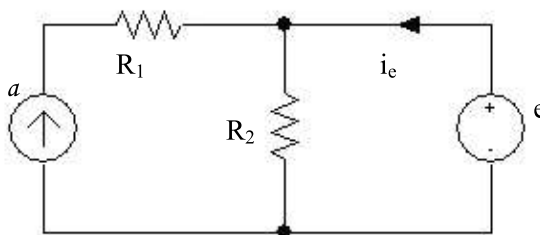


$R_1=25\Omega$   
 $R_2=20\Omega$   
 $R_3=10\Omega$   
 $R_4=90\Omega$   
 $i_g=10A$   
 $v_g=200V$

Risposta  $i_1 = 8,4A$ ;  $i_2 = -0.5A$ ;  $i_3 = 8.9A$ ;  $i_4 = -1.1A$ ;  $v_5 = -99V$

**Esercizio 8:**

Calcolare tutte le potenze sui bipoli e la corrente  $i_e$

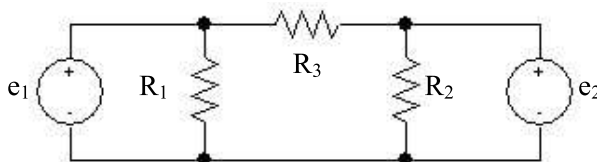


$R_1=2\Omega$   
 $R_2=1\Omega$   
 $a=3A$   
 $e=4V$

Risposta:  $P_1=18W$ ;  $P_2=16W$ ;  $P_e=4W$ ;  $P_a=30W$ ;  $i_e=1A$

**Esercizio 9:**

Calcolare le potenze erogate dai generatori e sulle resistenze



$e_1=20V$   
 $e_2=10V$   
 $R_1=10\Omega$   
 $R_2=15\Omega$   
 $R_3=5\Omega$

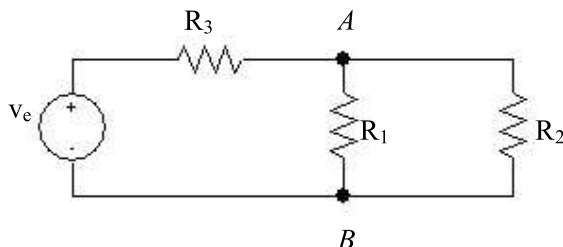
Risposta:  $P_{e1}=80W$ ;  $P_{e2}=-13.33W$ ;  $P_{R1}=40W$ ;  $P_{R2}=6.67W$ ;  $P_{R3}=20W$



**Esercitazione 1**

**Esercizio 10 :**

Calcolare  $V_{AB}$ ,  $R_1$ ,  $R_2$

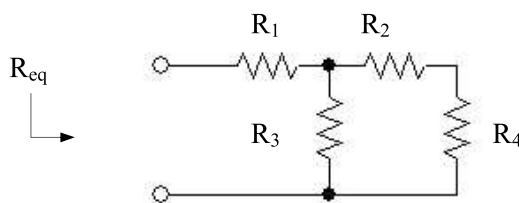


$P_{R1}=108W$   
 $P_{R2}=54W$   
 $P_{R3}=162W$   
 $R_3=2\Omega$

Risposta:  $V_{AB}=18V$ ;  $R_1=3\Omega$ ;  $R_2=6\Omega$

**Esercizio 11:**

Calcolare  $R_{eq}$

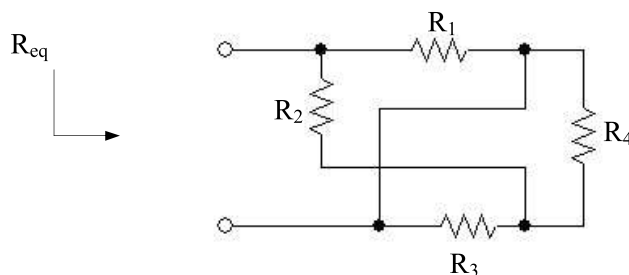


$R_1=5\Omega$   
 $R_2=4\Omega$   
 $R_3=3\Omega$   
 $R_4=2\Omega$

Risposta  $R_{eq}=7\Omega$

**Esercizio 12:**

Calcolare  $R_{eq}$

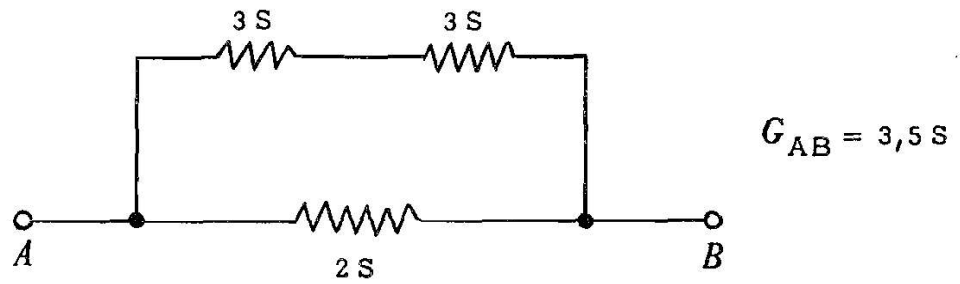


$R_1=10\Omega$   
 $R_2=20\Omega$   
 $R_3=40\Omega$   
 $R_4=40\Omega$

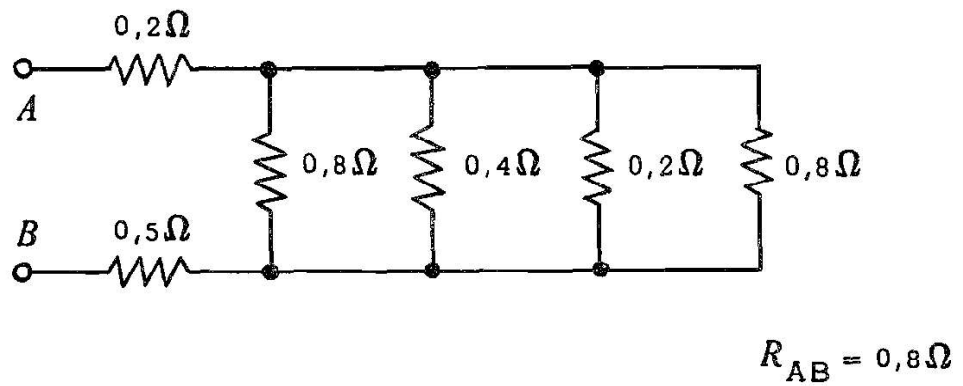
Risposta:  $R_{eq} = [(R_3 \parallel R_4) + R_2] \parallel R_1 = 8\Omega$

Esercizio:

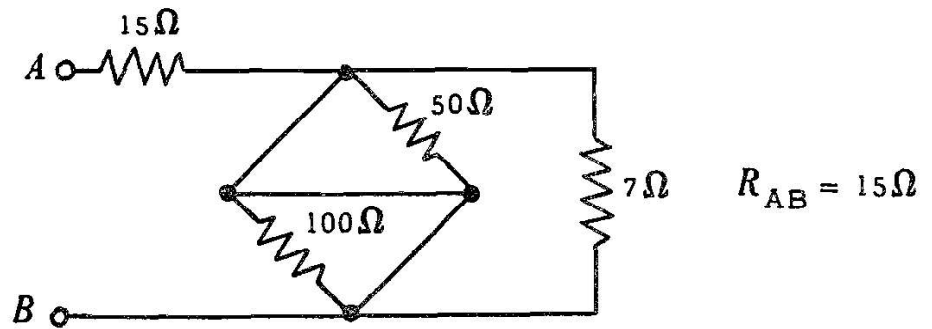
11 - Calcolare la conduttanza  $G_{AB}$



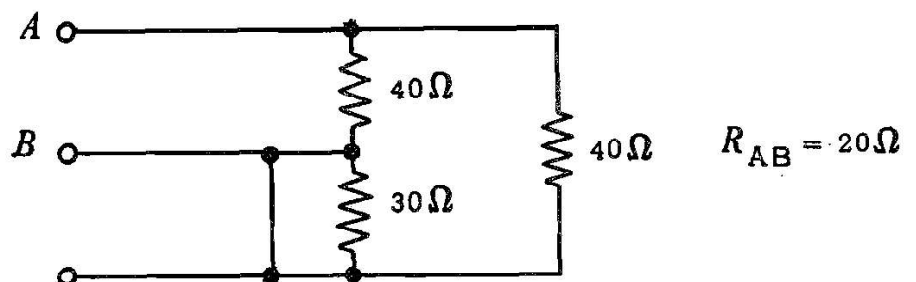
Esercizio: 12.



Esercizio: 13.



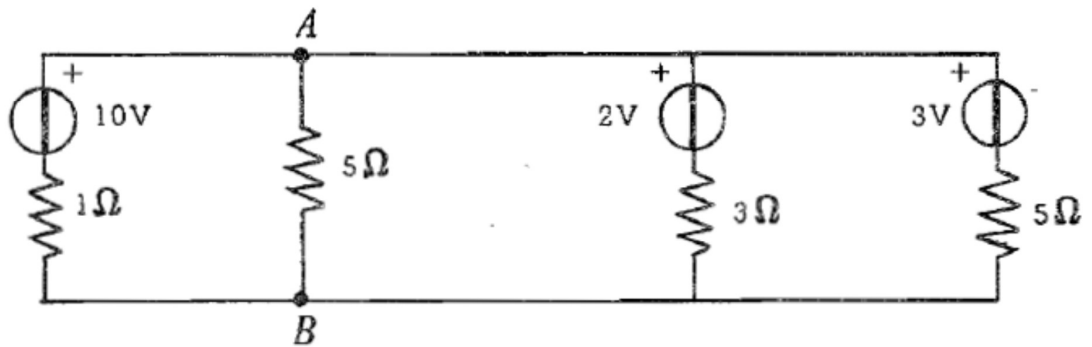
Esercizio: 14.



Esercizio: 48.

Determinare la tensione  $V_{AB}$ .

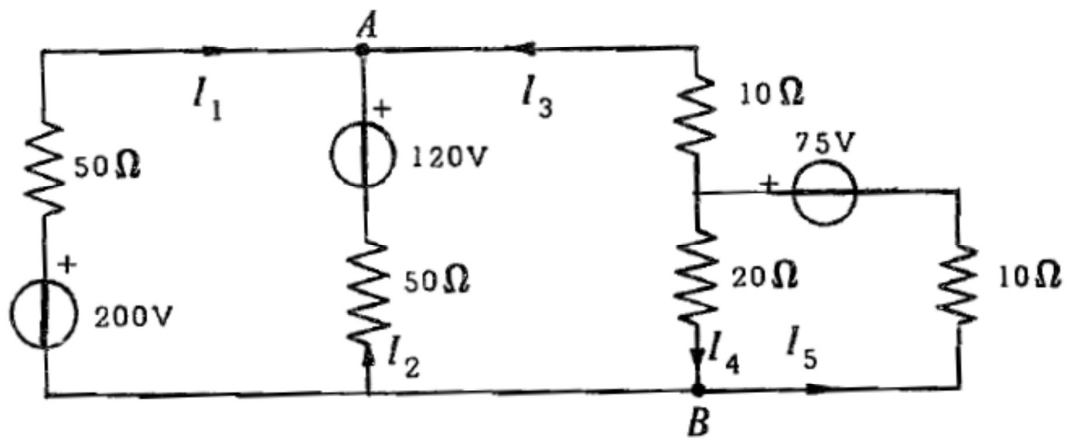
[ $V_{AB}=6,512 \text{ V}$ ]



Esercizio: 49.

Calcolare la tensione  $V_{AB}$ .

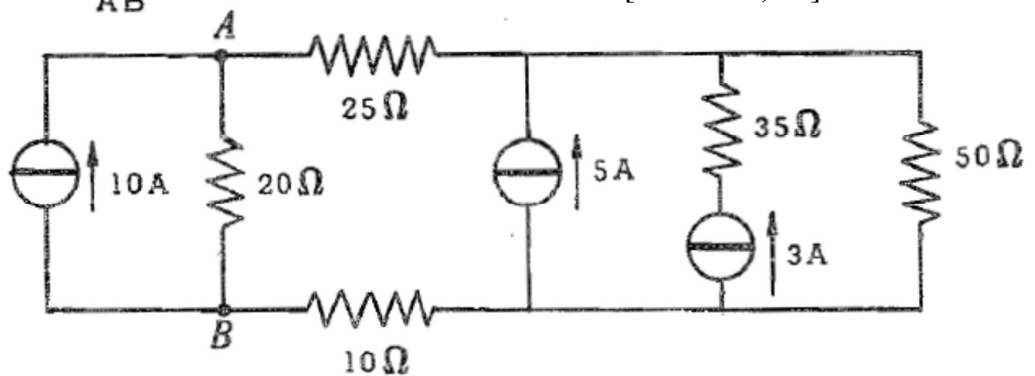
[ $V_{AB}=94 \text{ V}$ ]



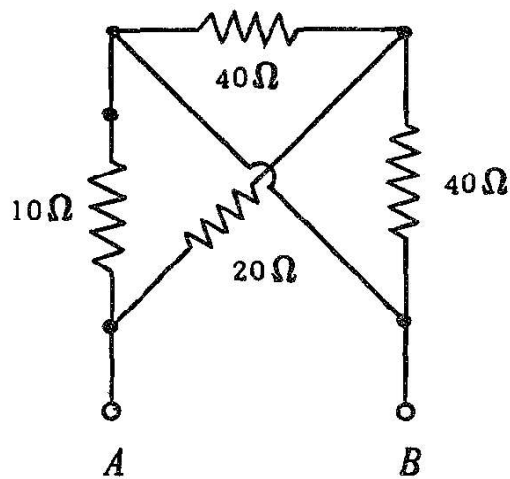
Esercizio: 50.

Calcolare  $V_{AB}$ .

[ $V_{AB}=238,1 \text{ V}$ ]

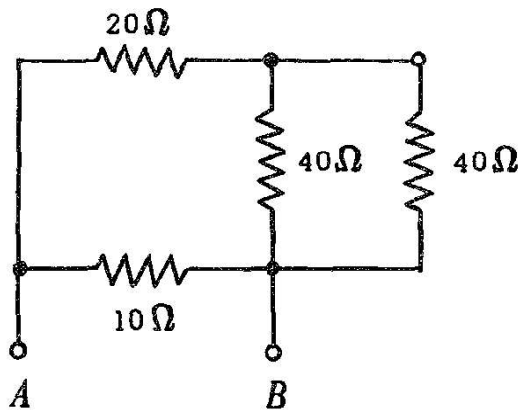


Esercizio: 15.



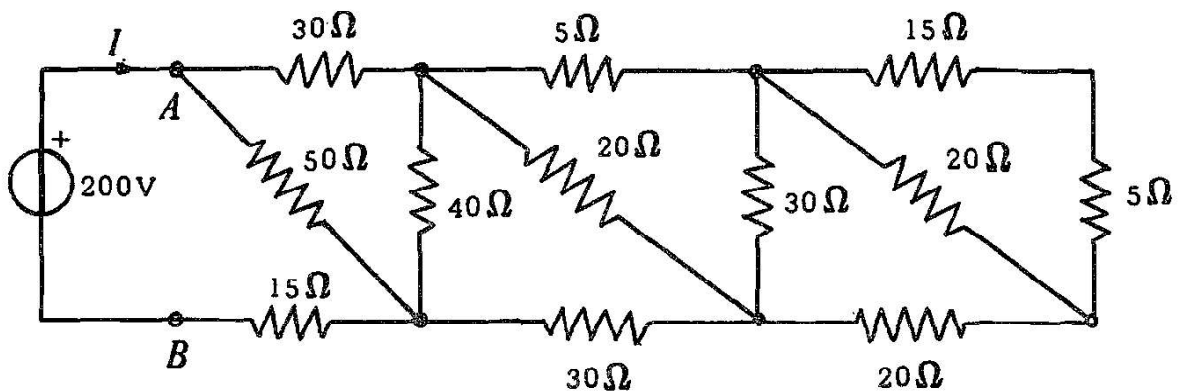
$$R_{AB} = 8\Omega$$

È utile ridisegnare il circuito nella forma seguente:



Esercizio:

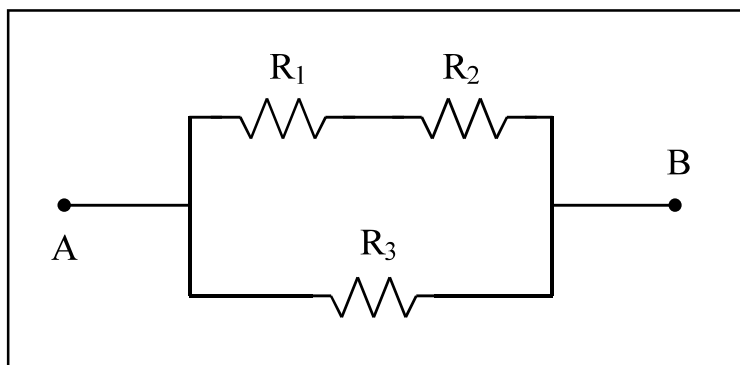
16 - Determinare la corrente  $I$  erogata dal generatore:



$$I = 200\text{ V} / 40\text{ Ohm} = 5\text{ A}$$

## Esercizi sul regime stazionario

**S1** - Calcolare la resistenza equivalente vista dai morsetti AB.

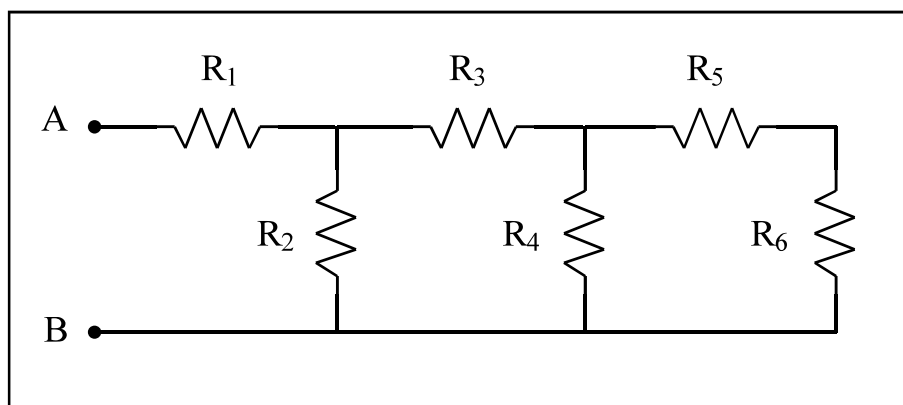


Dati:  $R_1 = 5 \Omega$ ,  $R_2 = 5 \Omega$ ,  $R_3 = 30 \Omega$ .

Risposta: la resistenza equivalente  $R_{AB}$  vale

$$R_{AB} = 7.5 \Omega .$$

**S2** - Per la rete mostrata in figura, calcolare la resistenza equivalente vista dai morsetti AB.



Dati:  $R_k = R = 2 \Omega$  ( $k = 1, 2, 3, 4, 5, 6$ ).

Risposta:  $R_{AB} = 3.25 \Omega$ .

Regime stazionario

ESERCIZI DA SVOLGERE

1.20 - Determinare il valore della resistenza equivalente ai morsetti A B del bipolo di Fig.1.20.

(R.:  $R_{AB} = 40\Omega$ )

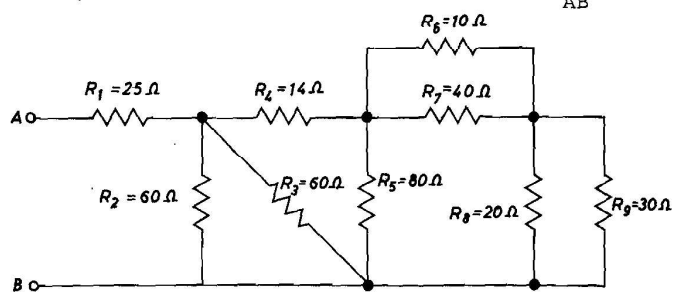


Fig.1.20

1.22 - Nella rete di Fig. 1.22 si determini la corrente  $I$  in  $R_2$ .

(R.:  $I = 10A$ )

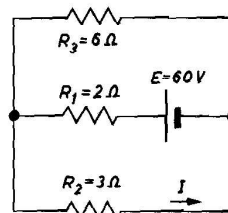


Fig.1.22