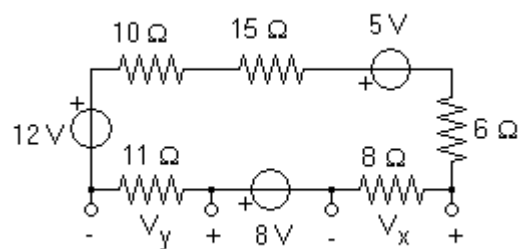


**Esercizio 1)**

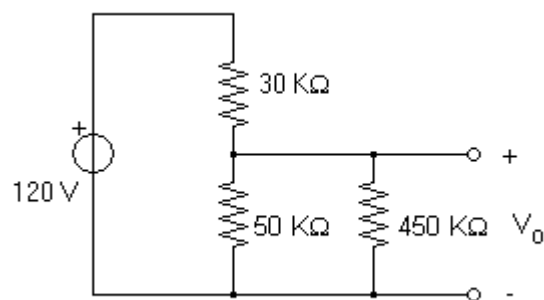
Determinare il valore di  $V_x$  e  $V_y$ .



[  $V_x=2.4\text{ V}$ ,  $V_y=3.3\text{ V}$  ]

**Esercizio 2)**

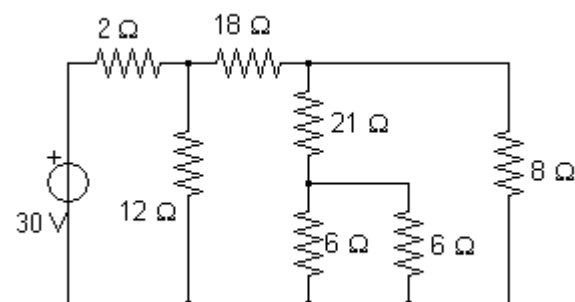
Determinare  $V_o$ .



[  $V_o=72\text{ V}$  ]

**Esercizio 3)**

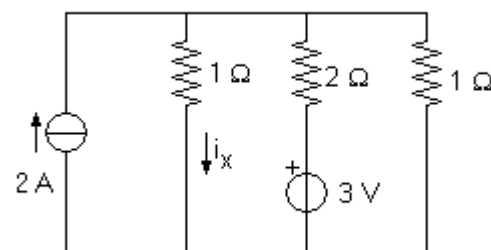
Determinare la potenza erogata dal generatore.



[  $p(t) = 90\text{ W}$  ]

**Esercizio 4)**

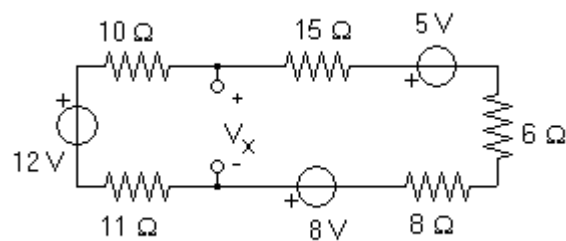
Determinare  $i_x$ .



[  $i_x=1.4\text{ A}$  ]

**Esercizio 5)**

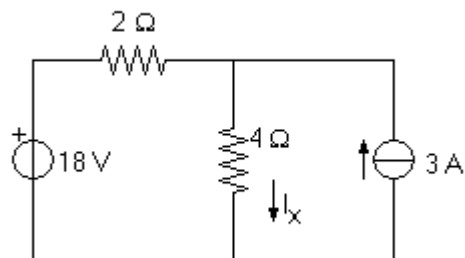
Determinare la tensione  $V_x$ .



[  $V_x = 5.7 \text{ V}$  ]

**Esercizio 6)**

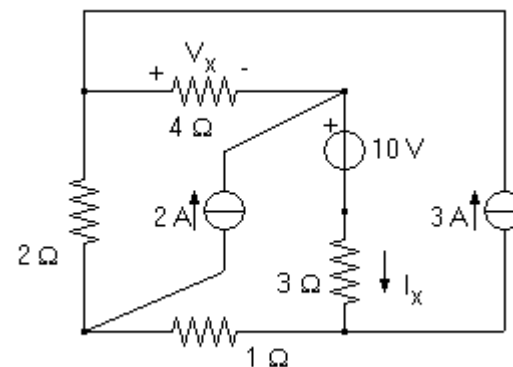
Determinare  $I_x$ .



[  $I_x = 4 \text{ A}$  ]

**Esercizio 7)**

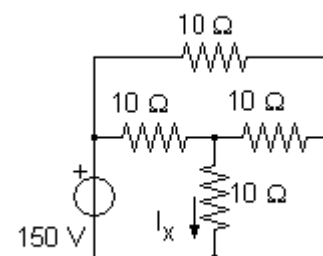
Usando il principio di sovrapposizione degli effetti, determinare  $I_x$  e  $V_x$ .



[  $I_x = 11/10 \text{ A}$ ,  $V_x = -18/5 \text{ V}$  ]

**Esercizio 8)**

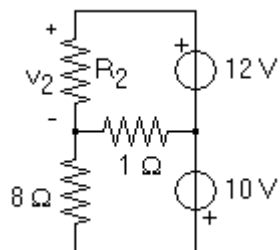
Determinare  $I_x$ .



[  $I_x = 5 \text{ A}$  ]

### Esercizio 9)

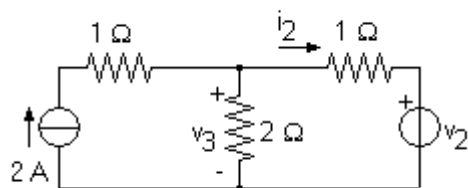
Nel circuito in figura, la tensione  $v_2$  è di 10 V. Qual è il valore del resistore  $R_2$ ?



[  $R_2 = 10 \text{ ohm}$  ]

### Esercizio 10)

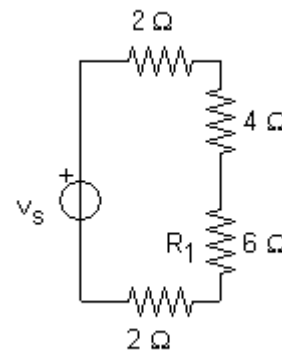
Per il circuito in figura, determinare  $i_2$  e la tensione del generatore  $v_2$ , sapendo che  $v_3 = 6 \text{ V}$ .



[  $i_2 = -1 \text{ A}$ ,  $v_2 = 7 \text{ V}$  ]

### Esercizio 11)

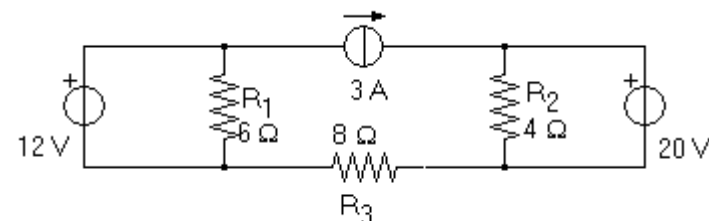
Nel circuito in figura, il resistore  $R_1$  assorbe una potenza di 6 W. Qual è il valore del generatore di tensione?



[  $v_s = 14 \text{ V}$  ]

### Esercizio 12)

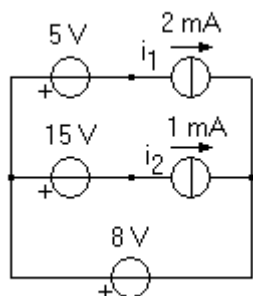
Determinare la potenza assorbita da ciascuno dei resistori nel circuito in figura.



[  $p_{R1} = 24 \text{ W}$ ,  $p_{R2} = 100 \text{ W}$ ,  $p_{R3} = 72 \text{ W}$  ]

**Esercizio 13)**

Determinare la potenza erogata da ciascun generatore di corrente nel circuito in figura.

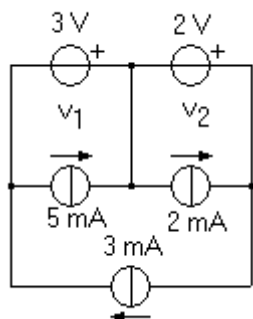


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[  $p_{i1} = -6 \text{ mW}$ ,  $p_{i2} = 7 \text{ mW}$  ]

**Esercizio 14)**

Determinare la potenza erogata da ciascun generatore di tensione nel circuito in figura.

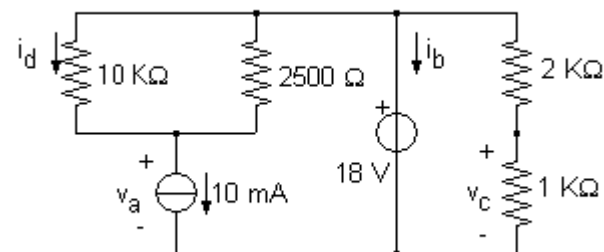


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[  $p_{v1} = -6 \text{ mW}$ ,  $p_{v2} = 2 \text{ mW}$  ]

**Esercizio 15)**

Determinare le tensioni  $v_a$  e  $v_c$  e le correnti  $i_b$  e  $i_d$  nel circuito in figura.

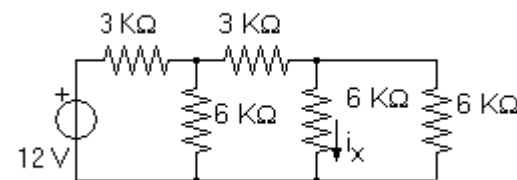


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[  $v_a = -2 \text{ V}$ ,  $v_c = 6 \text{ V}$ ,  $i_b = -16 \text{ mA}$ ,  $i_d = 2 \text{ mA}$  ]

**Esercizio 16)**

Determinare  $i_x$ .

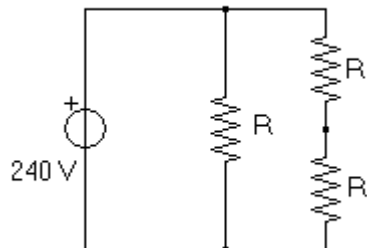


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[  $i_x = 0.5 \text{ mA}$  ]

**Esercizio 17)**

Nel circuito in figura, i tre resistori sono di uguale valore  $R$ , ed il generatore eroga una potenza di 1920 W. Qual è il valore di  $R$  ?

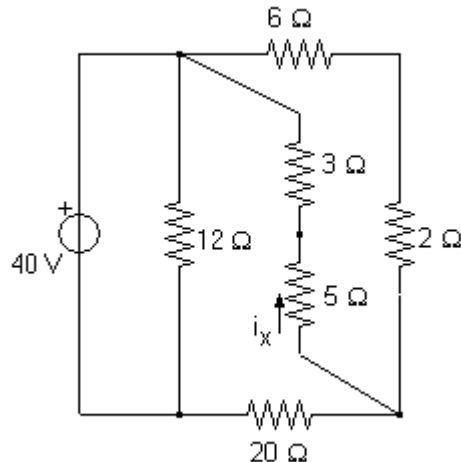


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[  $R = 45 \text{ ohm}$  ]

**Esercizio 18)**

Determinare  $i_x$ .



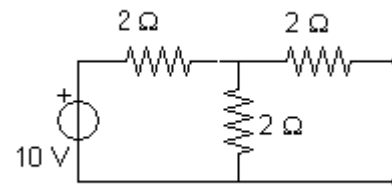
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[  $i_x = -5/6 \text{ A}$  ]

**Esercizio 19)**

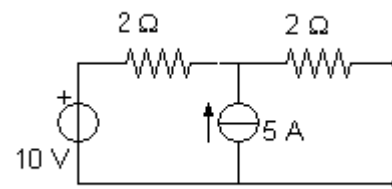
Determinare il valore della resistenza equivalente e del generatore equivalente di Thevenin per i circuiti in figura.

a)



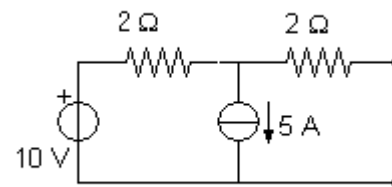
[  $R_{eq}=3 \text{ ohm}$ ,  $V_{eq}=5 \text{ V}$  ]

b)



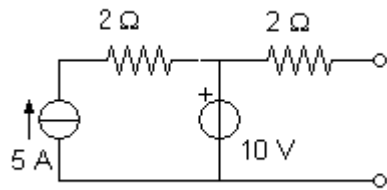
[  $R_{eq}=4 \text{ ohm}$ ,  $V_{eq}=20 \text{ V}$  ]

c)



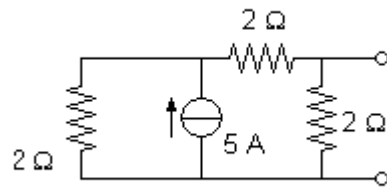
[  $R_{eq}=4 \text{ ohm}$ ,  $V_{eq}=0 \text{ V}$  ]

d)



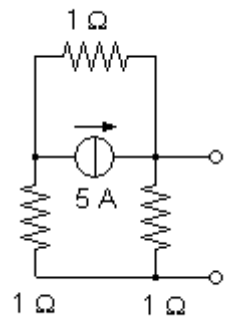
[  $R_{eq}=2\text{ ohm}$ ,  $V_{eq}=10\text{ V}$  ]

e)



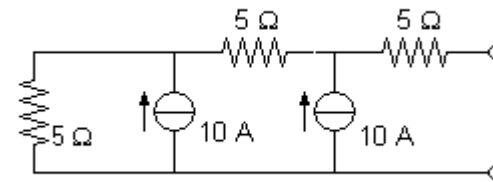
[  $R_{eq}=4/3\text{ ohm}$ ,  $V_{eq}=10/3\text{ V}$  ]

f)



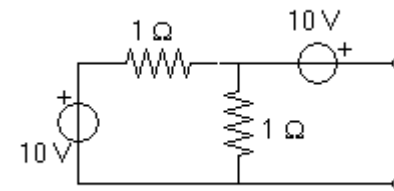
[  $R_{eq}=2/3\text{ ohm}$ ,  $V_{eq}=5/3\text{ V}$  ]

g)



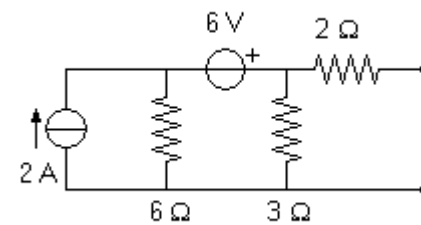
[  $R_{eq}=15\text{ ohm}$ ,  $V_{eq}=150\text{ V}$  ]

h)



[  $R_{eq}=1/2\text{ ohm}$ ,  $V_{eq}=15\text{ V}$  ]

i)

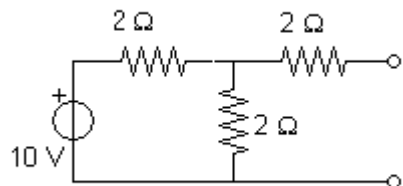


[  $R_{eq}=4\text{ ohm}$ ,  $V_{eq}=6\text{ V}$  ]

### Esercizio 20)

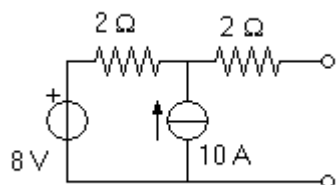
Determinare il valore della resistenza equivalente e del generatore equivalente di Norton per i circuiti in figura.

a)



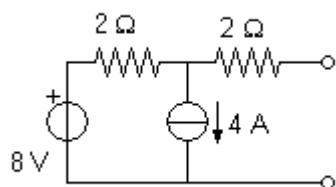
[  $R_{eq}=3 \text{ ohm}$ ,  $I_{eq}=5/3 \text{ A}$  ]

b)



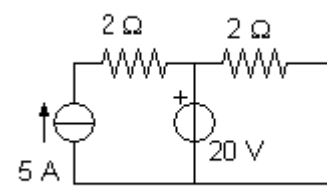
[  $R_{eq}=4 \text{ ohm}$ ,  $I_{eq}=7 \text{ A}$  ]

c)



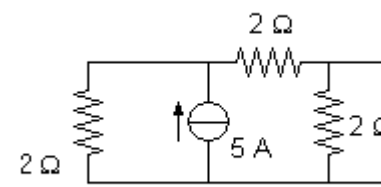
[  $R_{eq}=4 \text{ ohm}$ ,  $I_{eq}=0 \text{ A}$  ]

d)



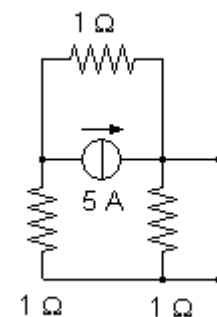
[  $R_{eq}=2 \text{ ohm}$ ,  $I_{eq}=10 \text{ A}$  ]

e)



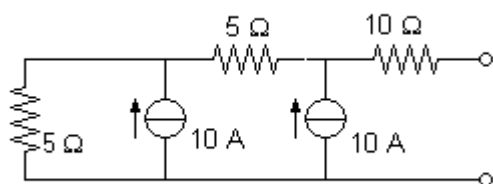
[  $R_{eq}=4/3 \text{ ohm}$ ,  $I_{eq}=5/2 \text{ A}$  ]

f)



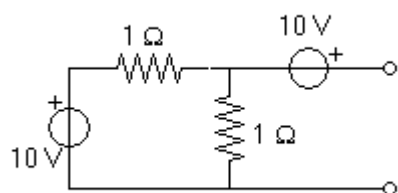
[  $R_{eq}=2/3 \text{ ohm}$ ,  $I_{eq}=5/2 \text{ A}$  ]

g)



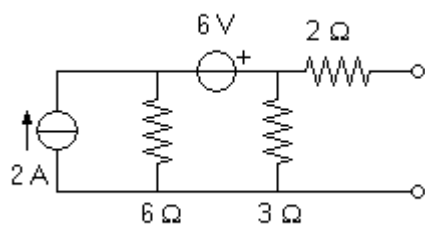
[  $R_{eq}=20 \text{ ohm}$ ,  $I_{eq}=7.5 \text{ A}$  ]

h)



[  $R_{eq}=1/2 \text{ ohm}$ ,  $I_{eq}=30 \text{ A}$  ]

i)



[  $R_{eq}=4 \text{ ohm}$ ,  $I_{eq}=3/2 \text{ A}$  ]