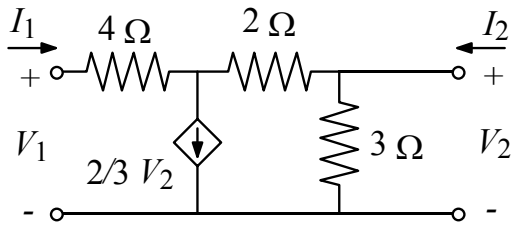
Esercizio 4.1)

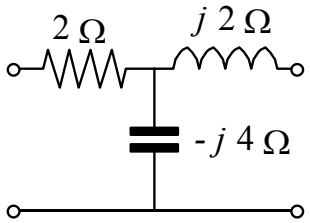
Determinare i parametri z della rete due porte in figura.



$$\left[\mathbf{z} = \begin{bmatrix} \frac{17}{3} & -\frac{1}{3} \\ 1 & 1 \end{bmatrix}\right]$$

Esercizio 4.2)

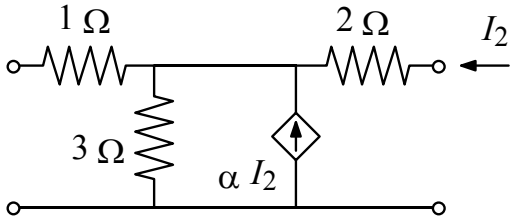
Determinare i parametri z, nel dominio dei fasori, della rete due porte in figura.



$$\left[\mathbf{z} = \begin{bmatrix} 2-j4 & -j4 \\ -j4 & -j2 \end{bmatrix}\right]$$

Esercizio 4.3)

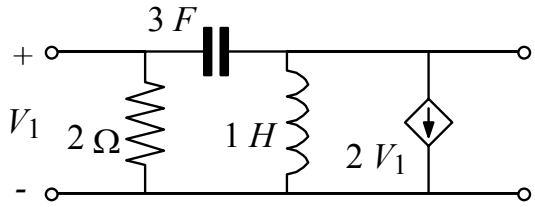
Determinare i parametri z della rete due porte in figura.



$$\left[\mathbf{z} = \begin{bmatrix} 4 & 3(1+\alpha) \\ 3 & 5+3\alpha \end{bmatrix}\right]$$

Esercizio 4.4)

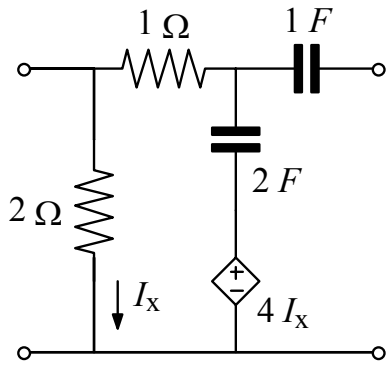
Determinare i parametri y della rete due porte in figura.



$$\left[\mathbf{y} = \begin{bmatrix} \frac{1+6s}{2} & -3s \\ -3s+2 & \frac{3s^2+1}{s} \end{bmatrix}\right]$$

Esercizio 4.5)

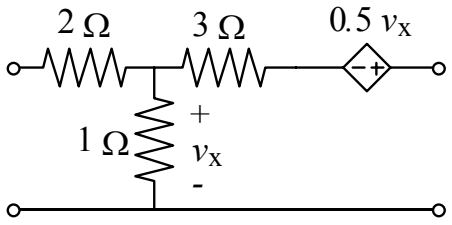
Determinare i parametri y della rete due porte in figura.



$$\left[\mathbf{y} = \begin{bmatrix} \dfrac{s+1}{6s+2} & -\dfrac{s}{3s+1} \\ -\dfrac{4s^2+s}{3s+1} & \dfrac{2s^2+s}{3s+1} \end{bmatrix}\right]$$

Esercizio 4.6)

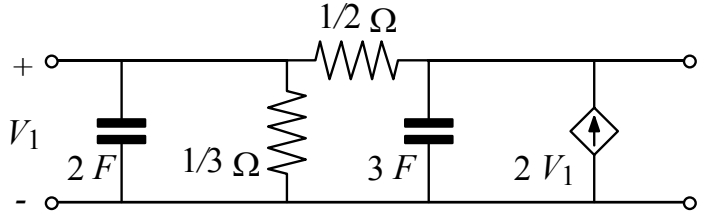
Determinare i parametri y della rete due porte in figura.



$$\left[\mathbf{y} = \begin{bmatrix} 3/8 & -1/12 \\ -1/8 & 1/4 \end{bmatrix}\right]$$

Esercizio 4.7)

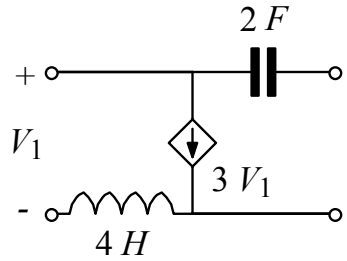
Determinare i parametri y della rete due porte in figura.



$$\left[\mathbf{y} = \begin{bmatrix} 2s+5 & -2 \\ -4 & 3s+2 \end{bmatrix}\right]$$

Esercizio 4.8)

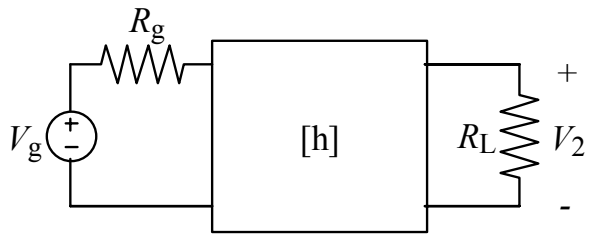
Determinare i parametri h della rete due porte in figura.



$$\left[\mathbf{h} = \begin{bmatrix} \dfrac{8s^2+1}{2s+3} & \dfrac{2s}{2s+3} \\ \dfrac{2s(12s-1)}{2s+3} & \dfrac{6s}{2s+3} \end{bmatrix}\right]$$

Esercizio 4.9)

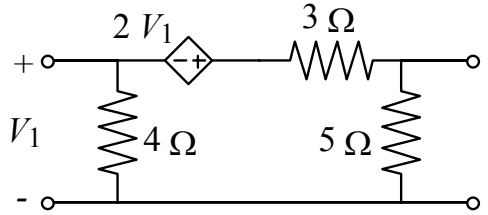
Nel circuito in figura, sono noti i parametri h della rete due porte.
Determinare la f.d.t. in tensione V_2/V_g.



$$\left[\frac{V_2}{V_g} = \frac{-h_{21}}{\left(h_{11} + R_g\right)\left(h_{22} + \frac{1}{R_L}\right) - h_{12}h_{21}} \right]$$

Esercizio 4.10)

Determinare i parametri h della rete due porte in figura.



$$\left[\mathbf{h} = \begin{bmatrix} 0.8 & 4/15 \\ -0.8 & 4/15 \end{bmatrix} \right]$$