

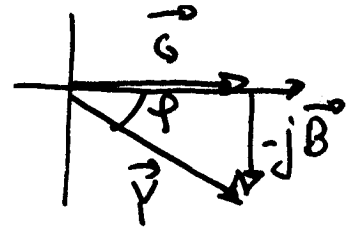
$$\bar{Y} = \bar{G} - j\bar{B}$$

circuito equivalente
parallelo dato $\bar{Z}(R+jX)$

$$\bar{Y} = \frac{1}{\bar{Z}} = \frac{1}{R+jX} = \frac{R-jX}{Z^2} = \frac{R}{Z^2} - j \frac{X}{Z^2} = G - jB$$

$\uparrow$ $\uparrow$
 G B

$$\bar{Y} = \sqrt{G^2 + B^2} \quad \text{tg } \varphi = -\frac{B}{G}$$



analogaente si ricava il circuito equivalente serie

$$\bar{Z} = R + jX$$

partendo dal circuito parallelo definito da $\bar{Y} = G - jB$

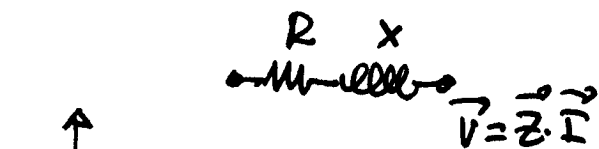
$\frac{1}{\bar{Y}} = \bar{Z}$ seguendo il ragionamento precedente.

Esempi

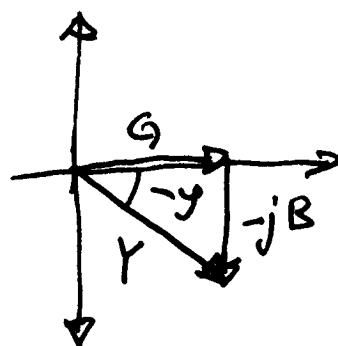
Ammettendo di $\bar{Z} = R + jX$ in serie $\bar{Y} = \frac{1}{\bar{Z}} = \frac{1}{R+jX}$

$$Y = \frac{R-jX}{R^2+X^2} = \frac{R}{R^2+X^2} - j \frac{X}{R^2+X^2} = G - jB$$

$\uparrow$ $\uparrow$
 conduttanza G suscettanza B



Triangolo delle
impedenze



Triangolo delle
ammettenze.

