

Function	Real Part	Imaginary Part	Amplitude	Complex Conjugate
$\cos\theta + i\sin\theta$	$\cos\theta$	$\sin\theta$	$\sqrt{\cos^2\theta + \sin^2\theta} = 1$ $\Leftrightarrow \boxed{1}$	$\cos\theta - i\sin\theta$
$\frac{1}{x}$	$\frac{1}{x}$	0	$\frac{1}{x}$	$\frac{1}{x}$
$x + 4ix^2$	x	$4x^2$	$\sqrt{x^2 + 16x^4}$	$x - 4ix^2$
$e^{i\theta}$	$e^{i\theta} = \cos\theta + i\sin\theta$ $\cos\theta$	$\sin\theta$	1	$e^{-i\theta}$
e^{-x}	e^{-x}	0	e^{-x}	e^{-x}
$\frac{\gamma}{x + i\gamma}$	$\frac{\gamma x}{x^2 + \gamma^2}$	$\frac{-\gamma^2}{x^2 + \gamma^2}$	$\sqrt{\frac{\gamma^2}{x^2 + \gamma^2}}$	$\frac{\gamma}{x - i\gamma}$

Note: Amplitude is $\sqrt{\text{Real}^2 + \text{Imaginary}^2}$

Function

Real part

Imaginary part

Amplitude

Complex conjugate