Algebraic Form	Complex number	$z = a + bi$	
	Conjugate	$\bar{z} = a - bi$	
	Symmetry	$-z = -a - bi$	
	Equality	$a + bi = c + di \Leftrightarrow a = c \wedge b = d$	
	Addition	$(a + bi) + (c + di) = (a + c) + (b + d)i$	
	Subtraction	$(a + bi) - (c + di) = (a - c) + (b - d)i$	
	Multiplication	$(a + bi) \times (c + di) = (ac - bd) + (ad + bc)i$	
	Division	$\frac{a + bi}{c + di} = \frac{a + bi}{c + di} \times \frac{c - di}{c - di} = \frac{ac + bd}{c^2 + d^2} + \frac{bc - ad}{c^2 + d^2}i$	
Trigonometric to Algebraic form conversion	Angle	$arg(z) = \theta$	$\theta = \tan^{-1}\left(\frac{b}{a}\right)$
	Distance	$\|z\| = \rho$	$\rho = \sqrt{a^2 + b^2}$
Trigonometric Form	Complex number	$z = \rho.\, cis(\theta)$	$z = \rho.\, (\cos\theta + i\sin\theta)$
	Conjugate	$\bar{z} = \|\rho\|.\, cis(-\theta)$	
	Symmetry	$-z = \|\rho\|.\, cis(\theta + \pi)$	
	Multiplication	$z_1 = \rho_1.\, cis(\theta_1)$ $z_2 = \rho_2.\, cis(\theta_2)$	$z_1 \times z_2 = \rho_1\rho_2.\, cis(\theta_1 + \theta_2)$
	Division		$\frac{z_1}{z_2} = \frac{\rho_1}{\rho_2}.\, cis(\theta_1 - \theta_2)$
	Inverse	$z^{-1} = \frac{1}{z}$	$z^{-1} = \frac{1}{\rho}.\, cis(-\theta)$
De Moivre's Formula	Exponentiation	$z^n = \rho^n.\, cis(n\theta)$	
	Radicals	$\sqrt[n]{\rho.\, cis\theta} = \sqrt[n]{\rho}.\, cis\left(\frac{\theta + 2k\pi}{n}\right), k \in \{0, ..., n-1), n \in \mathbb{N}$	