

Complex numbers in polar form

Recall that the polar form of complex numbers is $r(\cos \theta + i \sin \theta)$ where $r \in \mathbb{R}_+$ and $\theta \in [0, 2\pi)$.

Exercise 2.5

Transform the following complex numbers from polar to standard form:

a. $2\left(\cos \frac{1}{3}\pi + i \sin \frac{1}{3}\pi\right)$

b. $3(\cos(-\pi) + i \sin(-\pi))$

c. $\cos \frac{1}{2}\pi + i \sin \frac{1}{2}\pi$