

Concept Question 7-3: If \mathbf{Z} is a complex number that lies in the first quadrant in the complex plane, its complex conjugate \mathbf{Z}^* will lie in which quadrant?

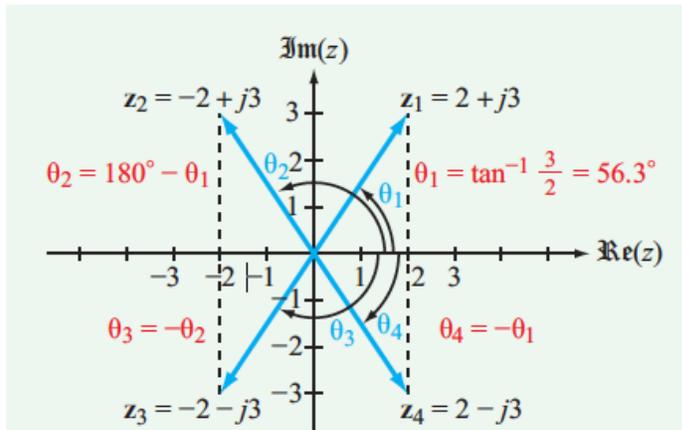


Figure 7-4: Complex numbers z_1 to z_4 have the same magnitude $|z| = \sqrt{2^2 + 3^2} = 3.61$, but their polar angles depend on the polarities of their real and imaginary components.

z_4 is the complex conjugate of z_1 . It lies in the Fourth Quadrant.