Some preliminary

Set Theory

We will assume that you are familiar with some basic set theory e.g. union, intersection, difference

The Number System

$N = 1, 2, 3, \cdots$ the set of all positive integers n natural numbers

$Z = \cdots, -2, -1, 0, -1, -2, \cdots$ the set of all integers called the ring of intepus

$Q = mn \ : \ n, m \in Z, n \neq 0$ the set of all rational numbers

R the set all of real numbers on the real number field on real line

$C = z = a + ib \mid a, b \in R$ the set of all complex numbers or the complex number filed on complex plane, where $i = \sqrt{-1}$

rmk* tcolorbox enumerate

in complex analysis