Astronomer Cal Sagan Discovered from smoke filled telescopic lenses, a planet with billions upon billions of moons call that number N moons, including multiplicity, which he termed “fuzzy” moons. He came up with a 2-dimensional experimentally based model of this with |z|≤1 representing the planet and the location of moons given by the roots of + Z + = 0 in the Complex-plane with ||>1 + || + ……… + || and || + || + ……+|a|2 + ||.

He couldn’t quite figure out why all of his moons lied in this region. Show using Rouche’s Theorem that all the N moons lie in 1