

This thesis is an introduction to exploring singularities of algebraic varieties. In the first chapter, we state basic definitions and theorems necessary for exploring singularities. Firstly, we define algebraic varieties and their corresponding ideals and explain the term of Krull dimension. We also focus on the local properties of varieties. In the second chapter, we begin by examining the term of singularity in detail and introducing methods for searching for singularities. We prove two theorems about the shape and the dimension of singularities. In the second part, we prove theorems about the zero divisors, which enable us to define Cohen-Macaulay and Gorenstein rings. We use them to roughly classify singularities of algebraic varieties.