

The theses concerns the topic of p-adic Ruban and Browkin continued frations and their properties. To begin with, the concept of p-adic numbers is introduced and the necessary theory is shown. Next, continued fractions are defined and their convergence in both real and p-adic numbers is analyzed. Following this, the theses examines Ruban continued fractions and presents an algorithm for determining whether the expansion is terminating, along with a derivation of the maximum number of algorithmic steps required. It also holds that if Ruban expansion is not terminating, then it is periodic. A detailed description of the periodicity, including its properties, is provided. Then the focus is shifted to Browkin continued fractions. It holds that every rational number has a finite Browkin continued fraction. This claim is subsequently proven. The theses concludes with examples that demonstrate the properties of both Ruban and Browkin continued fractions.