A Study on Normal basis Theorem for Finite Fields

Khin Swe Win [1] and Hnin Lè Yee [2]

Abstract

In this paper, we first introduce some basic definitions and theorems for finite fields. Then we state some definitions and theorems for basis and normal basis. Finally, a normal basis of the finite extension over finite field is proved by example.

Key words: finite fields, finite extension, normal basis.

1. Associate Professor, Dr., Department of Mathematics, Yangon University of Education.
2. Professor/Head, Dr., Department of Mathematics, Yangon University of Education.