BINARY TREES AND LATTICES OF A FINITE ABELIAN p-GROUP OF RANK TWO

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Abstract

Let G be a finite Abelian p-group of rank two. In this paper, we enumerate maximal chains, describe a method of constructing a binary tree on the basis of a subgroup lattice of G. The interesting problem of finding the number of maximal chains on the lattice is reduced to a counting technique on the derived binary tree. We illustrate with a specific example on a group of suitable order.