

DEGREE SEQUENCES OF MONOCORE GRAPHS

ALLAN BICKLE

Department of Mathematics
Dordt College 498 4th Ave NE Sioux Center
Iowa, USA

e-mail: allan.bickle@dordt.edu

Abstract

A k -monocore graph is a graph which has its minimum degree and degeneracy both equal to k . Integer sequences that can be the degree sequence of some k -monocore graph are characterized as follows. A nonincreasing sequence of integers d_1, \dots, d_n is the degree sequence of some k -monocore graph G , $0 \leq k \leq n - 1$, if and only if $k \leq d_i \leq \min\{n - 1, k + n - i\}$ and $\sum d_i = 2m$, where m satisfies $\lceil \frac{k \cdot n}{2} \rceil \leq m \leq k \cdot n - \binom{k+1}{2}$.

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