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INTERVAL INCIDENCE COLORING OF SUBCUBIC GRAPHS[1]

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Abstract

In this paper we study the problem of interval incidence coloring of subcubic graphs. In [14] the authors proved that the interval incidence 4-coloring problem is polynomially solvable and the interval incidence 5-coloring problem is $\mathcal{NP}$-complete, and they asked if $\chi_{ii}(G) \leq 2\Delta(G)$ holds for an arbitrary graph G. In this paper, we prove that an interval incidence 6-coloring always exists for any subcubic graph G with $\Delta(G) = 3$.

Keywords: interval incidence coloring, incidence coloring, subcubic graph.

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