

LIST EDGE COLORING OF PLANAR GRAPHS WITHOUT 6-CYCLES WITH TWO CHORDS

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Abstract

A graph G is edge- L -colorable if for a given edge assignment $L = \{L(e) : e \in E(G)\}$, there exists a proper edge-coloring φ of G such that $\varphi(e) \in L(e)$ for all $e \in E(G)$. If G is edge- L -colorable for every edge assignment L such that $|L(e)| \geq k$ for all $e \in E(G)$, then G is said to be edge- k -choosable. In this paper, we prove that if G is a planar graph without 6-cycles with two chords, then G is edge- k -choosable, where $k = \max\{7, \Delta(G) + 1\}$, and is edge- t -choosable, where $t = \max\{9, \Delta(G)\}$.

Keywords: planar graph, edge choosable, list edge chromatic number, chord.

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