

A note on 3-choosability of planar graphs related to Montassier's conjecture

Haihui Zhang

Abstract. A graph $G = (V, E)$ is L -colorable if for a given list assignment $L = \{L(v) : v \in V(G)\}$, there exists a proper coloring c of G such that $c(v) \in L(v)$ for all $v \in V$. If G is L -colorable for every list assignment L with $|L(v)| \geq k$ for all $v \in V$, then G is said to be k -choosable. Montassier (Inform. Process. Lett. 99 (2006) 68-71) conjectured that every planar graph without cycles of length 4, 5, 6, is 3-choosable. In this paper, we prove that every planar graph without 5-, 6- and 10-cycles, and without two triangles at distance less than 3 is 3-choosable.