

Irregular edge-colorings of sums of cycles of even lengths

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Abstract

P. Wittmann showed that for the irregular coloring number $c(G)$ of a simple 2-regular graph of order n the inequality $c(G) \leq \sqrt{2n} + O(1)$ holds. We determine the exact value of this number in the case when 2-regular graph consists of cycles of even lengths. For this purpose we consider decompositions of several classes of graphs.