

On Fibonacci numbers in edge coloured unicyclic graphs

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Let G be an undirected, connected graph. Let $\mathcal{C} = \{A, B\}$ be the set of two colours. We say that a graph G is an $(A, 2B)$ -edge coloured if for every maximal B -monochromatic subgraph $H \subseteq G$ there is a partition of H into edge disjoint paths of the length 2. In the talk we present the lower bound and the upper bound for the number of all $(A, 2B)$ -edge colourings in unicyclic graphs. We give full characteristic of graphs achieving these extreme values. Moreover, we determined the successive extreme unicyclic graphs with respect to the number of all $(A, 2B)$ -edge colourings.

References

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