

TO FIND THE COMPARISON OF THE RADIUS WITH THE RAINBOW CONNECTION NUMBER OF INTERVAL GRAPHS

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ABSTRACT

Graph coloring takes its name from the map coloring application, we assign labels to vertices. When the numerical value of the labels is unimportant, we call them colors to indicate that, they may be elements of any set. In graph theory, a connected component of an undirected graph is a sub graph in which any two vertices are connected to each other by paths. The rainbow connection number of a connected graph is the minimum number of colors needed to color its edges, so that every pair of its vertices is connected by at least one path in which no two edges are colored the same. In this paper we show that the rainbow connection number of an interval graph, which are of the form the rainbow connection number is equal to the radius of the graph G plus three.

KEYWORDS: Radius, Eccentricity, Interval Graph, Rainbow Connection Number, Rainbow Path