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RICHNESS OF A VERTEX IN A GRAPH

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Abstract: The stress of a vertex in a graph is the number of geodesics passing through it. The status of a vertex v in a graph is the sum of the distances from v to all other vertices. We define the richness of a vertex v in a graph as the status of v minus the stress of v. The total richness of a graph is the sum of richness of all the vertices in that graph. We made some observations, compute richness of vertices in some standard graphs and obtain some interesting results.