

## H-Irregularity Strengths of Plane Graphs

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### Abstract

Graph labelling is the mapping of elements of a graph (which can be vertices, edges, faces, or a combination) to a set of numbers. The mapping usually produces partial sums (weights) of the labeled elements of the graph, and they often have an asymmetrical distribution. In this paper, we study vertex-face and edge-face labelings of two-connected plane graphs. We introduce two new graph characteristics, namely the vertex-face H-irregularity strength and edge-face H-irregularity Strength of plane graphs. Estimations of these characteristics are obtained, and exact values for two families of graphs are determined.

### References

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