

SUPER EDGE MAGIC TOTAL LABELLING FOR TRIANGLE SNAKE GRAPH

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In graph theory, there are different types of techniques for graph labelling, such as radio labelling, harmonious labelling, graceful labelling, magic and antimagic labelling, etc. This study investigated a type of magic labelling called super edge-magic total labelling for triangle snake graphs. It was proved that the triangle snake graph can be labelled using super-edged magic total labelling. Let $|V(G)| = p$, $|E(G)| = q$, and n be the number of triangles in that pattern, then the magic number was obtained as $k = p + q + 3 = 3(n + 2)$. Therefore, this study validates a new super edge-magic total labelling pattern for the triangle snake graph, opening avenues for further studies on similar graphs and potential real-world applications. Future work will explore extending these findings to other graph structures.

Keywords: Super edge magic total labelling, Triangular snake graph