Skolem Number of Lattice Type Graphs

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A proper Skolem labelling of a graph G is a function assigning a positive integer to each vertex of G such that any two vertices assigned the same integer are that distance apart in the graph. The Skolem number of a graph is smallest number n such that there exists a proper Skolem labelling only using the positive integers less than or equal to n. We will provide the Skolem number for many families of subgraphs of different lattice graphs, such as square, triangular, hexagonal, and Kagome.