

Minimum Dominating Set of a Graph

Robert Krecny, Regina Thase, Frank Bedekovich

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1 Introduction

In this paper, we explore the Minimum Dominating Set of a Graph and how to find it. The Minimum Domianting Set of a Graph is the Set of all nodes such that every node or one of its neighbors is in the set.

This paper is divided into the following sections. Section 2 contains background information on the Minimum Dominating Set. Section 3 contains the algorithms used to solve for the Minimum Dominating Set. Section 4 contains experimental data when running the algorithm. Section 5 concludes the paper.

2 Background

The Minimum Dominating Set of a Graph is defined as the set of vertices for which each vertex or one of its neighbors is in the set.

Consider the graph in Figure 1.