ABSTRACT

Author: Ryan Higgins

Title: Edge Distinguishing Chromatic Number

Thesis Advisor: Braxton Carrigan

Department: Department of Mathematics

Year: 2021

The field of vertex colorings is widespread and contains many applications. We explore a form of vertex coloring called Edge-Distinguishing coloring and seek to find the associated chromatic number of certain families of simple graphs. More specifically, we explore both the proper and non-proper Edge-Distinguishing chromatic numbers of paths, cycles, and the Cartesian product of paths and cycles.