On d-antimagic labelings of antiprisms

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Abstract

This paper deals with d-antimagic labeling of antiprisms. In a d-antimagic labeling the vertices, edges and faces of a plane graph are labeled in such a way that the label of a face and the labels of vertices and edges surrounding that face add up to a weight of the face and the weights of faces constitute an arithmetical progression of difference d. In this paper we prove that for $n \geq 5$, the antiprism A_n is d-antimagic of type (1,1,1) for $d = 3, 5$ and 6.

1 Introduction

In this paper we consider finite undirected plane graphs without loops and multiple edges. A graph G consists of a vertex set $V(G)$, an edge set $E(G)$ and a face set $F(G)$ with cardinalities v, e and f, respectively. A general reference for graph theoretic notions is [13].