

(a, d) -antimagic labelings

The weight $w(v)$ of a vertex $v \in VF(G)$ under a edge labeling $g : E \rightarrow \{1, 2, \dots, |E|\}$ is the sum of the labels of edges incident to vertex v .

A connected graph $G = (V, E)$ is said to be (a, d) -antimagic (K. Wagner and R. Bodendiek, 1993) if there exist positive integers a, d and bijection $g : E(G) \rightarrow \{1, 2, \dots, |E(G)|\}$ such that the induced mapping $\delta_g : V(G) \rightarrow W$ is also a bijection, where $W = \{w(v) : v \in V(G)\} = \{a, a + d, \dots, a + (|V(G)| - 1)d\}$ is the set of weights of vertices.

The weight $w(f)$ of a face $f \in F(G)$ under a edge labeling $g : E \rightarrow \{1, 2, \dots, |E|\}$ is the sum of the labels of edges surrounding that face.

A connected plane graph $G = (V, E, F)$ is said to be (a, d) -face antimagic if there exist positive integers a, d and bijection $g : E(G) \rightarrow \{1, 2, \dots, |E(G)|\}$ such that the induced mapping $\psi_g : F(G) \rightarrow W$ is also a bijection, where $W = \{w(f) : f \in F(G)\} = \{a, a + d, \dots, a + (|F(G)| - 1)d\}$ is the set of weights of faces.

The following papers deal with (a, d) -antimagic or (a, d) -face antimagic labelings.

- Bača, M. - Miller, M.: *Valuations of a certain class of convex polytopes*, **JCMCC** **43** (2002), 207-218.
- Bača, M. - Lin, Y. - Miller, M.: *Valuations of plane quartic graphs*, **JCMCC** **41** (2002), 209-221.
- Bača, M. - Miller, M.: *Antimagic face labeling of convex polytopes based on bipyramids*, **JCMCC** **36** (2001), 229-236.
- Miller, M. - Bača, M. - Lin, Y.: *On two conjectures concerning (a, d) -antimagic labelings of antiprisms*, **JCMCC** **37** (2001), 251-254.
- Bača, M.: *Special face numbering of plane quartic graphs*, **Ars Combinatoria** **57** (2000), 285-292.
- Miller, M. - Bača, M.: *Antimagic valuations of generalized Petersen graphs*, **Austral. J. Combin.** **22** (2000), 135-139.
- Bača, M.: *Antimagic labelings of antiprisms*, **JCMCC** **35** (2000), 217-224.
- Bača, M. - MacDougall, J.A. - Miller, M. - Slamin - Wallis, W.D.: *Survey of certain valuations of graphs*, **Discussiones Math. Graph Theory** **20** (2000), 219-229.
- Bača, M.: *Consecutive-magic labeling of generalized Petersen graphs*, **Utilitas Mathematica** **58** (2000), 237-241.
- Bača, M.: *Face antimagic labelings of convex polytopes*, **Utilitas Mathematica** **55** (1999), 221-226.
- Bača, M. - Holländer, I.: *On (a, d) -antimagic prisms*, **Ars Combinatoria** **48** (1998), 297-306.
- Bača, M. - Holländer, I.: *On (a, b) -consecutive Petersen graphs*, **Acta Math. Appl. Sinica** **14** (1998), 265-270.