

1102-13-22

Hailee Peck* (hpeck@millikin.edu). *An extension of central set results on zero-divisor graphs to ideal-divisor graphs.*

In 1988, I. Beck introduced the concept of the zero-divisor graph, which was then modified by Anderson and Livingston in 1999. In 2003, Redmond generalized this concept to an ideal-based zero-divisor graph, commonly referred to as an ideal-divisor graph, and in 2006 he proved results concerning central sets of zero-divisor graphs. We investigate properties of ideal-divisor graphs and extend many of Redmond's results from zero-divisor graphs to ideal-divisor graphs. In particular, we provide a complete classification of the radius and center of ideal-divisor graphs. (Received June 19, 2014)