

1009-05-100

Oleg Pikhurko* (pikhurko@andrew.cmu.edu), Department of Mathematics, Carnegie Mellon University, Pittsburgh, PA 15213. *On product anti-magic graphs.*

Let us call a graph G with m edges *product anti-magic* if we can bijectively label edges with numbers $1, \dots, m$ so that no two vertices have the same product over incident edges. Ringel conjectured that every connected graph of order at least 4 is product anti-magic. We prove this conjecture for all graphs of sufficiently large order by using probabilistic methods. (Received August 09, 2005)