

1056-06-739

John Harding and **Qin Yang*** (qyang@nmsu.edu), PO BOX 30001, Department of Mathematical Sciences, New Mexico State University, Las Cruces, NM 88003-8001. *Regular completions of lattices.*

We know that the varieties of lattices admitting MacNeille completions are the variety of one-element lattices and the variety of all lattices. A variety of lattice admits a regular completion if every lattice in the variety can be embedded into a complete lattice in the variety by an embedding that is regular (preserves existing joins and meets). It remains an open problem whether the only varieties of lattices admitting a regular completion are the trivial variety and the variety of all lattices. We'll show that there are only two varieties of lattices admitting a meet dense regular completion: the trivial variety and the variety of all lattices. (Received September 16, 2009)