Weak near-rings

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ABSTRACT.

We define a generalization of the concept of rings, weak near-rings. This is a particular case of infra-near-rings defined by M. Ştefănescu and generalizes also the concept of weak rings (A. Climescu, 1964). Correspondences between a class $\mathcal W$ of weak near-rings and a class of near-rings, and between $\mathcal W$ and a class of groups are established in the paper. In this context, we extend some results obtained for nonassociative rings by Mal'cev and Weston, and for near-rings, by M. Ştefănescu.

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