

Trivial Units in Abelian Group Algebras

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Abstract: We find a necessary and sufficient condition when all units in arbitrary abelian group algebras are trivial by reducing it to the torsion case. This is a supplement to our recent results in (Extracta Math., 2008). In particular, we extend theorems due to Ritter-Selgal (Math. Proc. Royal Irish Acad., 2005) and Herman-Li (Proc. Amer. Math. Soc., 2006).

Key words: Group algebras, groups, rings, normalized units, trivial units, idempotent units, idempotents, nilpotents, torsion elements.

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