

Embedding free products in the unit group of an integral group ring

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Let G be a finite group and let p be a prime. We show that the unit group of the integral group ring $\mathbb{Z}G$ contains the free product $\mathbb{Z}_p * \mathbb{Z}$ if and only if G has a noncentral element of order p . Moreover, when this occurs, the \mathbb{Z}_p part of the free product can be taken to be a suitable noncentral subgroup of G of order p .

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