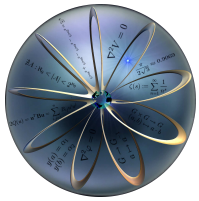

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graph product of groups

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Defines	graph product

Let Γ be a finite undirected graph and let $\{G_v \colon v \in V(\Gamma)\}$ be a collection of groups associated with the vertices of Γ. Then the *graph product of the groups* G_v is the group $G = F/R$, where F is the free product of the G_v and R is generated by the relations that elements of G_u commute with elements of G_v whenever u and v are adjacent in Γ.

The free product and the direct product are the extreme examples of the graph product. To obtain the free product, let Γ be an anticlique, and to obtain the direct product, let Γ be a clique.

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