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support

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Let $R[G]$ be the group ring of a group G over a ring R.

Let $x = \sum_g x_g g$ be an element of $R[G]$. The *support* of x, often written $\operatorname{supp}(x)$, is the set of elements of G which occur with non-zero coefficient in the expansion of x.

Thus:

$$\operatorname{supp}(x) = \{g \in G \mid x_g \neq 0\}.$$