support

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The *support* $\text{Supp}(M)$ of a module M over a ring R is the set of all prime ideals $\mathfrak{p} \subset R$ such that the localization $M_{\mathfrak{p}}$ is nonzero.

The *maximal support* $\text{Supp}_m(M)$ of a module M over a ring R is the set of all maximal ideals $\mathfrak{m} \subset R$ such that $M_{\mathfrak{m}}$ is nonzero.