



Math for the people, by the people.

## Goldie ring

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Defines	left Goldie
Defines	right Goldie
Defines	left Goldie ring
Defines	right Goldie ring

Let  $R$  be a ring. If the set of annihilators  $\{\text{r. ann}(x) \mid x \in R\}$  satisfies the ascending chain condition, then  $R$  is said to satisfy the *ascending chain condition on right annihilators*.

A ring  $R$  is called a *right Goldie ring* if it satisfies the ascending chain condition on right annihilators and  $R_R$  is a module of finite rank.

*Left Goldie ring* is defined similarly. If the context makes it clear on which side the ring operates, then such a ring is simply called a *Goldie ring*.

A right Noetherian ring is right Goldie.