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# List of symbols

$\mathbb{F}_q$	finite field with $q$ elements
$\mathbb{Z}$	ring of integers
$\mathbb{Z}_{>0}$	set of positive integers
$\mathbb{Z}_{\geq 0}$	set of non-negative integers
$ S $	cardinality of a set $S$
$\mathcal{M}_n(R)$	ring of $n \times n$ matrices with entries in the ring $R$
$\mathcal{M}_{n \times m}(R)$	set of $n \times m$ matrices with entries in the ring $R$
$R^e$	the enveloping algebra of $R$ (page 76)
$R^\circ$	the opposite ring of the ring $R$
$R[G]$	the group ring of $G$ over $R$
$\text{Max}(R)$	set of maximal ideals of a commutative ring $R$
$\text{Spec}(R)$	set of prime ideals of a commutative ring $R$
$J(R)$	Jacobson radical of a ring $R$
$Z(R)$	centre of a ring $R$
$\text{char}(R)$	characteristic of a ring $R$
$\text{rad}(n)$	the product of all primes dividing an integer $n$
$\hookrightarrow$	injective map
$\twoheadrightarrow$	surjective map
$M \otimes_R N$	tensor product of $M$ with $N$ over $R$
$\text{End}_R(M)$	ring of $R$ -endomorphisms of $M$
$\text{Hom}_R(M, N)$	group of $R$ -homomorphisms from $M$ to $N$
$\mathfrak{M}_R^{\text{fg}}$	category of finitely generated right $R$ -modules
$\mathfrak{M}_R$	category of right $R$ -modules

${}^{\text{fg}}_R\mathfrak{M}$	category of finitely generated left $R$ -modules
${}_R\mathfrak{M}$	category of left $R$ -modules
${}_R M_S$	$R$ - $S$ -bimodule $M$