

# Notation

<i>notation</i>	<i>meaning</i>
$\{ \quad \}$	set
$\{ x \mid \dots \}$	the set of all $x$ such that $\dots$
$\in$	is an element of
$\notin$	is not an element of
$\subset$	is a subset of
$\supset$	contains
$\not\subset$	is not a subset of
$\emptyset$	the empty set
$\cap$	intersection
$\cup$	union
$\exists$	there exists
$!$	unique
$s.t.$ or $\text{.}\exists.$	such that
$\forall$	for all
$\Rightarrow$	implies
$\Leftrightarrow$	if and only if
iff	if and only if
wolog	without loss of generality
$\mathbb{N}$	the set of all positive integers (not including 0)
$\mathbb{Z}$	the set of all integers
$\mathbb{Q}$	the set of all rational numbers
$\mathbb{R}$	the set of all real numbers
$\mathbb{C}$	the set of all complex numbers
$(a, b)$	the open interval $\{ x \in \mathbb{R} \mid a < x < b \}$
$[a, b]$	the closed interval $\{ x \in \mathbb{R} \mid a \leq x \leq b \}$