

## List of Symbols

### Abbreviations

A	Algorithm
C	Corollary
D	Definition
E	Example
EPf	End of proof
F	Fact
L	Lemma
LS	Left side
RS	Right side
N	Notation
OM	Order matters
<del>OM</del>	Order does not matter
P	Proposition
Pf	Proof
Q	Question
RA	Repetition allowed
<del>RA</del>	Repetition is not allowed
S	Specification
SPf	Start of proof
T	Theorem
W	Witness
HW	Homework

## Special Sets

$\mathbb{N}$  The set of natural numbers starting at 0

$\mathbb{Z}$  The set of whole numbers

$\mathbb{Q}$  The set of rational numbers

$\mathbb{R}$  The set of real numbers

$\mathbb{C}$  The set of complex numbers

## Logic and Set Theory

$=$  is equal

$\neq$  is not equal to

$\perp$  falsehood

$T$  Truth

$\neg$  not

$\wedge$  and

$\vee$  or

$\Rightarrow$  implies

$\Leftrightarrow$  if and only if, implies and is implied by

$\exists$  for some, there exists some

$\nexists$  for no, there does not exist any

$\forall$  for every

$\in$  is in, is contained in, belongs to

$\notin$  is not in, is not contained in, does not belong to

$\subseteq$  is included in, is a subset of

$\not\subseteq$  is not included in, is not a subset of

$\{\}$  the empty set

$\cup$	Union
$\sqcup$	Disjoint union
$\cap$	Intersection
$\setminus$	Without (Relative complementation)
$\prod, \times$	Cartesian Product
$\sqcup$	Coproduct
$\sim, \approx$	is equivalent to
$\cong$	is isomorphic to
$\because$	Since, because
$\therefore$	Hence, therefore