Discrete Mathematics: An Open Introduction, 3rd edition

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Appendix C List of Symbols

Symbol	Description	Location
$P, Q, R, S, \ldots$	propositional (sentential) variables	Paragraph
$\wedge$	logical "and" (conjunction)	Item
$\vee$	logical "or" (disjunction)	Item
$\neg$	logical negation	Item
$\exists$	existential quantifier	Summary
$\forall$	universal quantifier	Summary
$\emptyset$	the empty set	Item
$\mathcal{U}$	universe set (domain of discourse)	Item
$\mathbb{N}$	the set of natural numbers	Item
$\mathbb{Z}$	the set of integers	Item
$\mathbb{Q}$	the set of rational numbers	Item
$\mathbb{R}$	the set of real numbers	Item
$\mathcal{P}(A)$	the power set of A	Item
$\{,\}$	braces, to contain set elements.	Item
$:$	"such that"	Item
$\in$	"is an element of"	Item
$\subseteq$	"is a subset of"	Item
$\subset$	"is a proper subset of"	Item
$\cap$	set intersection	Item
$\cup$	set union	Item
$\times$	Cartesian product	Item
$\setminus$	set difference	Item
$\overline{A}$	the complement of A	Item
$|A|$	cardinality (size) of A	Item
$A \times B$	the Cartesian product of A and B	Paragraph
$f(A)$	the image of A under f.	Paragraph
$f^{-1}(B)$	the inverse image of B under f.	Paragraph
$\mathbf{B}^n$	the set of length n bit strings	Item
$\mathbf{B}^n_k$	the set of length n bit strings with weight k.	Item
$(a_n)_{n \in \mathbb{N}}$	the sequence $a_0, a_1, a_2, \ldots$	Paragraph
T_n	the nth triangular number	Item
F_n	the nth Fibonacci number	Exercise 2.1.5
Δ^k	the kth differences of a sequence	Paragraph
$P(n)$	the nth case we are trying to prove by induction	Paragraph
42	the ultimate answer to life, etc.	Paragraph
$\therefore$	"therefore"	Paragraph
K_n	the complete graph on n vertices	Paragraph
K_n	the complete graph on n vertices.	Item
$K_{m,n}$	the complete bipartite graph of m and n vertices.	Item
C_n	the cycle on n vertices	Item
P_n	the path on $n + 1$ vertices	Item
$\chi(G)$	the chromatic number of G	Paragraph
$\Delta(G)$	the maximum degree in G	Paragraph
$\chi'(G)$	the chromatic index of G	Paragraph
$N(S)$	the set of neighbors of S.	Paragraph