## Notation Index

$\exists$ (there exists) Fn-4
$\forall$ (for all) Fn-4
$\ni$ (such that) Fn-4
$B_{n}$ (Bell numbers) CL-27
$s \sim t$ (equivalence relation) GT-5
$\binom{n}{k}$ (binomial coefficient) CL-15
$\binom{n}{m_{1}, m_{2}, \ldots}$ (multinomial coefficient) CL-20
$\operatorname{BFE}(T)$ (breadth first vertex sequence) DT-8, GT-29
$\mathrm{BFV}(T)$ (breadth first vertex sequence) DT-8, GT-29
$C(n, k)$ (binomial coefficient) CL-15
$\operatorname{Cov}(X, Y)$ (covariance) Fn-25
$\operatorname{DFV}(T)$ (depth first vertex sequence) DT-8, GT-29
$x \mid y(x$ divides $y) \quad$ GT-24
$\operatorname{DFE}(T)$ (depth first edge sequence) DT-8, GT-29
$\mu_{X}$ (expectation or mean) Fn-24
$E(X)$ (expectation) Fn-24
$f \circ g$ (composition) Fn-7
$(n)_{k}$ (falling factorial) CL-9
$F_{n}$ (Fibonacci numbers) DT-48
$\lfloor x\rfloor$ (floor) DT-50
$(V, E)$ (simple graph) GT-2
( $V, E, \phi$ ) (graph) GT-2
$\mathbb{N}$ (natural numbers) CL-13
$\underline{n}$ (first $n$ integers) Fn-1
$O$ () (Big oh notation) GT-38
o( ) (little oh notation) GT-40
$\mathcal{P}_{k}(A)$ ( $k$-subsets of $A$ ) CL-15, Fn-1
$\mathcal{S}(A)$ (permutations of $A$ ) Fn-7
$\operatorname{PER}(A)$ (permutations of $A$ ) Fn-7

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$\rho(X, Y)$ (correlation) Fn-25
$\sigma_{X}$ (standard deviation) Fn-25
$E(X)$ (expectation) Fn-24
$\operatorname{Cov}(X, Y)$ (covariance) Fn-25
$\operatorname{Var}(X)$ (variance) Fn-25
$P(A \mid B)$ (conditional probability) DT-27
$\operatorname{POSV}(T)$ (postorder sequence of vertices) DT-8
$\operatorname{PREV}(T)$ (preorder sequence of vertices) DT-8
$\mathbb{Q}$ (rational numbers) Fn-1
$\mathbb{R}$ (real numbers) CL-28, Fn-1
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$\in$ and $\notin$ (in and not in) CL-14
$A^{\prime}$ (complement) CL-14, Fn-1
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$A \cap B$ (intersection) CL-14, Fn-1
$A \cup B$ (union) CL-14, Fn-1
$A \oplus B$ (symmetric difference) Fn-1
$A \backslash B$ (difference) CL-14, Fn-1
$A \subseteq B$ (subset) CL-14
$A \times B$ (Cartesian product) CL-4, Fn-1
$A^{c}$ (complement) CL-14, Fn-1
$\mathcal{P}_{k}(A)$ ( $k$-subsets of $A$ ) CL-15, Fn-1
$|A|$ (cardinality) CL-3, CL-14
$\sigma_{X}$ (standard deviation) Fn-25
$S(n, k)$ (Stirling numbers) CL-25
$\Theta()$ (rate of growth) GT-38
$\operatorname{Var}(X)$ (variance) Fn-25
$\mathbb{Z}$ (integers) CL-13, Fn-1

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