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# Table of Symbols

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|---|---|
| $\{a, b, x\}$ | Set with members $a$, $b$ and $x$ |
| $\{x \mid p(x)\}$ | The set of $x$ for which $p(x)$ is true |
| $p \wedge q$ | $p$ and $q$ |
| $p \vee q$ | $p$ or $q$ |
| $\neg p$ | not $p$ |
| iff | if and only if |
| $p \Rightarrow q$ | $p$ implies $q$ |
| $p \Leftrightarrow q$ | $p$ if and only if $q$ |
| $(a, b)$ | Ordered pair: $(a, b) = (c, d)$ iff $a = c \wedge b = d$ |
| $a \in A$ | $a$ is a member of the set $A$ |
| $A \times B$ | $\{(a, b) \mid a \in A \wedge b \in B\}$ |
| $\mathbf{R}$ | The real numbers |
| $\mathbf{R}^n$ | The $n$-dimensional real vector space |
| $(x_1, \ldots, x_n) \in \mathbf{R}^n$ | An $n$-dimensional vector |
| $f : A \rightarrow B$ | A function $b = f(a)$, where $a \in A$ and $b \in B$ |
| $f(\cdot)$ | A function $f$ where we suppress its argument |
| $f^{-1}(y)$ | The inverse of function $y = f(x)$ |
| $\sum_{x=a}^{b} f(x)$ | $f(a) + \ldots + f(b)$ |
| $S_1 \times \ldots \times S_n$ | $\{(s_1, \ldots s_n) \mid s_i \in S_i, i = 1, \ldots n\}$ |
| $\Delta S$ | Set of probability distributions (lotteries) over $S$ |
| $[a, b]$ | $\{x \in \mathbf{R} \mid a \leq x \leq b\}$ |
| $[a, b)$ | $\{x \in \mathbf{R} \mid a \leq x < b\}$ |
| $(a, b]$ | $\{x \in \mathbf{R} \mid a < x \leq b\}$ |
| $(a, b)$ | $\{x \in \mathbf{R} \mid a < x < b\}$ |
| $A \cup B$ | $\{x \mid x \in A \vee x \in B\}$ |
| $A \cap B$ | $\{x \mid x \in A \wedge x \in B\}$ |
| $\cup_\alpha A_\alpha$ | $\{x \mid x \in A_\alpha$ for some $\alpha\}$ |
| $\cap_\alpha A_\alpha$ | $\{x \mid x \in A_\alpha$ for all $\alpha\}$ |
| $A \subset B$ | $A \neq B \wedge (x \in A \Rightarrow x \in B)$ |
| $A \subseteq B$ | $x \in A \Rightarrow x \in B$ |