

Summary of Tableau 4

Towards an axiomatic theory of probability
Sets and set operations

Notation, terminology	Basic set operations	Properties
Universal set: Ω	Union: $A \cup B$	Zero and unit: $A \cap \Omega = A, A \cup \emptyset = A$
Empty set: \emptyset	Intersection: $A \cap B$	Unions and intersections are commutative and associative
Membership: $\omega \in \Omega$	Complement: A^c	Unions and intersections distribute over each other
Subset: $A \subseteq \Omega$	Set difference: $A \setminus B$	De Morgan's laws
Visualisation tool: Venn diagrams	Symmetric difference: $A \triangle B$	Set equality: $A = B$ if, and only if, $A \subseteq B$ and $B \subseteq A$