Discrete Math

Contents

Part I Discrete Math: Logic

Chapter I Propositional Logic

§ 1.1 Connectives and Truth Assingments

1 Connectives

Define 1.1.1 (Truth table of Connectives)   (Omitted)

Define 1.1.2 (Truth Assingments)   Suppose Σ is the set of propositional variables. A mapping from Σ to $\{\mathbf{T}, \mathbf{F}\}$ called a truth assignment.

Define 1.1.3   Suppose Σ is the set of propositional variables and $\mathcal{J} : \Sigma \to \{\mathbf{T}, \mathbf{F}\}$ is a truth assignment. The truth value of the compond proposition on $\mathcal{J}$ …
(Omitted)

Define 1.1.4 (Tautology, contradiction)   (Omitted)

Define 1.1.5 (Contingency, Satisfiable)   A contingency is a compound proposition that is neither a tautology nor a contradiction.
A compound proposition is satisfiable if it is true under some truth assignment.

e.g. 1.1.1   sd