

CM0845 Logic

Propositional Logic: Some Properties

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Semester 2016-1

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Remark

The reference for this section is van Dalen [2013, § 2.3].

Finite Conjunctions and Disjunctions

Finite conjunctions

$$\bigwedge_{i \leq 0} \varphi_i = \varphi_0,$$
$$\bigwedge_{i \leq n+1} \varphi_i = \bigwedge_{i \leq n} \varphi_i \wedge \varphi_{n+1}.$$

Finite disjunctions

$$\bigvee_{i \leq 0} \varphi_i = \varphi_0,$$
$$\bigvee_{i \leq n+1} \varphi_i = \bigvee_{i \leq n} \varphi_i \vee \varphi_{n+1}.$$

References



van Dalen, Dirk [1980] (2013). Logic and Structure. 5th ed. Springer (cit. on p. 2).