



Math for the people, by the people.

Beth property

Canonical name	BethProperty
Date of creation	2013-03-22 13:49:40
Last modified on	2013-03-22 13:49:40
Owner	Aatu (2569)
Last modified by	Aatu (2569)
Numerical id	7
Author	Aatu (2569)
Entry type	Definition
Classification	msc 03B99
Defines	Beth property
Defines	Beth definability property

A logic is said to have the *Beth property* if whenever a predicate R is implicitly definable by ϕ (i.e. if all models have at most one unique extension satisfying ϕ), then R is explicitly definable relative to ϕ (i.e. there is a ψ not containing R , such that $\phi \models \forall x_1, \dots, x_n (R(x_1, \dots, x_n) \leftrightarrow \psi(x_1, \dots, x_n))$).