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interpolation property

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Defines	interpolation property

A logic is said to have the *interpolation property* if whenever $\phi(R,S) \rightarrow \psi(R,T)$ holds, then there is a sentence $\theta(R)$, so that both $\phi(R,S) \rightarrow \theta(R)$ and $\theta(R) \rightarrow \psi(R,T)$ hold, where R,S and T are some sets of symbols that occur in the formulas, R being the set of symbols common to both ϕ and ψ.

The interpolation property holds for first order logic. The interpolation property is related to Beth definability property and Robinson's consistency property. Also, a natural generalisation is the concept Δ-closed logic.