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Distinguishing non-standard natural numbers in a set theory within Łukasiewicz logic.

(English) [Zbl 1110.03049](#)

Arch. Math. Logic 46, No. 3-4, 281-287 (2007).

Summary: In \mathbb{H} , a set theory with the comprehension principle within Łukasiewicz infinite-valued predicate logic, we prove that a statement which can be interpreted as “there is an infinite descending sequence of initial segments of ω ” has truth value 1 in any model of \mathbb{H} , and we prove an analogy of Hájek’s theorem [ibid. 44, No. 6, 763–782 (2005; [Zbl 1096.03064](#))] with a very simple procedure.

MSC:

[03E72](#) Theory of fuzzy sets, etc.
[03B52](#) Fuzzy logic; logic of vagueness
[03B50](#) Many-valued logic

Cited in **1** Review
Cited in **2** Documents

Keywords:

set theory; arithmetic; Łukasiewicz logic; comprehension principle; nonstandard natural numbers

Full Text: [DOI](#)

References:

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