

# Re: Godel cant tell us what makes a mathematical statement true

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*Source:* <http://sci.tech-archive.net/Archive/sci.logic/2008-08/msg00315.html>

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- *From:* Nam Nguyen <[namducnguyen@xxxxxxx](mailto:namducnguyen@xxxxxxx)>
  - *Date:* Fri, 15 Aug 2008 05:27:25 GMT
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herbzet wrote:

Nam Nguyen wrote:

The aliases are here only to demonstrate to the readers that, for *\*better\** reasoning, we should base mathematical assertions on syntactical provability rather than the old intuitive notion of "truth". For example, to prove F is undecidable, with 100% certainty, we should prove so using *\*only\** syntactical rules of inferences and axioms!

If a theory T proves a sentence is undecidable in T, then T is inconsistent. (Not actually sure this is correct ("true") in complete generality.)

Note that I said "we should prove" but didn't say "we can prove". The point being is *\*in general\** if you can't syntactically prove F is undecidable, then no matter what else you might say using the canonical definition of truth it wouldn't be sufficient. (And I can demonstrate this, but perhaps in different post, if you'd like to).

But I've never said or believed we can always syntactically prove an undecidability.

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"To discover the proper approach to mathematical logic, we must therefore examine the methods of the mathematician." (Shoenfield, "Mathematical Logic")

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