

Re: what makes it true?

Source: <http://sci.tech-archive.net/Archive/sci.math/2005-09/msg01399.html>

- *From:* mareg@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx ()
 - *Date:* Wed, 7 Sep 2005 09:14:43 +0000 (UTC)
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In article <slrndhqsba.to4.tim-usenet@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, Timothy Little <tim-usenet@xxxxxxxxxxxxxxxxxxxxxx> writes:
>mareg@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx () wrote:
>>Timothy Little <tim-usenet@xxxxxxxxxxxxxxxxxxxxxx> writes:
>>>And if it turns out that neither GC nor not-GC can be deduced from the
>>>axioms...?
>>
>> Then we would know that GC was true.
>
>Even though some model of the natural numbers may contain an even
>number greater than two that is not a sum of two primes?

That would be very interesting indeed. But my understanding of GC is that it is a statement about the natural numbers rather than a formal statement in the theory of the natural numbers. If you are interpreting it as a formal statement then it could indeed turn out to be true in some models but not in others.

>Which model do you take as the *real* one?

I am just using the "the natural numbers" in the standard sense – I think this is normally called the standard model. (The presence or absence of zero is not important in this context.)

>
>> I am not sure where this discussion is leading. The original
>> question was something like "Can a mathematical statement be true
>> without it having been proved?", and it still seems to me that the
>> simple answer is yes. Do you disagree with that?
>
>Yes.

Well, I said that almost all people would agree – that allows for some exceptions!

>
>> I don't think many people would argue that FLT was not true in 1980.
>
>Possibly not many would. Most seem to believe that mathematical truth

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>is something to be discovered. Some think that mathematical truth is
>something to be created.

Yes, and the situation is complicated by the fact that many people claim
to be believe one while behaving as though they believe the other.

Derek Holt.

• *Follow-Ups:*

- ◆ *Re: what makes it true?*
◇ *From:* Timothy Little
- ◆ *Re: what makes it true?*
◇ *From:* Dave Rusin
- ◆ *Re: what makes it true?*
◇ *From:* Daniel Grubb

• *References:*

- ◆ *what makes it true?*
◇ *From:* lhlhsand
- ◆ *Re: what makes it true?*
◇ *From:* Timothy Little
- ◆ *Re: what makes it true?*
◇ *From:*
- ◆ *Re: what makes it true?*
◇ *From:* Timothy Little

- Prev by Date: *Re: Snake lemma–Five lemma*
- Next by Date: *Re: 30 seconds. Can you do this partial fraction expansion fast paper and pencil?*
- Previous by thread: *Re: what makes it true?*
- Next by thread: *Re: what makes it true?*
- Index(es):
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