

# Re: Help in answering news story on refutation of fermat's last theorem

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*Source:* <http://sci.tech-archive.net/Archive/sci.math/2005-05/msg05460.html>

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- *From:* [anzaures1@xxxxxxxxxxx](mailto:anzaures1@xxxxxxxxxxx)
  - *Date:* 29 May 2005 18:28:47 -0700
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anzaures1@xxxxxxxxxxx wrote:

> Torkel Franzen wrote:  
>> anzaures1@xxxxxxxxxxx writes:  
>>  
>>> When we, mathematicians, say that a statement is true in a given  
>>> axiomatic system, we mean that one can logically derive this statement  
>>> from the axioms.  
>  
>> People do indeed often speak of a statement being "true in a given  
>> axiomatic system" when they mean that it is provable in that system.  
>> While mostly harmless, this terminology promotes needless confusion.  
>> For example, it sometimes prompts them to contradict the simple  
>> observation that there are theories with false axioms.  
>  
> Whom "them"? Non-logician mathematicians? Name one active mathematical  
> non-logician theory, which contains "false axioms", whatever that  
> means. There are none. Only idiots would work on theories that contain  
> false axioms.  
>  
> In fact, there are very few axioms in mathematics. Pretty much  
> everything is just definitions:  
>  
> "A group is a set of elements with a two-to-one mapping called  
> "multiplication" such that ....."  
>  
> "A metric space is a set of elements with a mapping into reals such  
> that ...."  
>  
> "Hausdorff space is a topological space such that ...."  
>  
> etc.  
>  
> In productive areas of math, all you need to know are a set of most  
> common axioms for integers and an understanding of what is meant by  
> terms like "set", "element", "mapping", etc. Everything else, including  
> rationals and reals, are just definitions... No axioms.

• **References:**

- ◆ **[Re: Help in answering news story on refutation of fermat's last theorem](#)**  
◇ From: Stephen J. Herschkorn
- ◆ **[Re: Help in answering news story on refutation of fermat's last theorem](#)**  
◇ From: Mark Nudelman
- ◆ **[Re: Help in answering news story on refutation of fermat's last theorem](#)**  
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