Re: what makes it true?

Source: http://sci.tech−archive.net/Archive/sci.math/2005−09/msg01433.html

- *From*: Esa A E Peuha <esa.peuha@xxxxxxxxxxx>
- *Date*: 07 Sep 2005 13:32:20 +0300

Torkel Franzen <torkel@xxxxxxxxxx> writes:

> Esa A E Peuha <esa.peuha@xxxxxxxxxxx> writes:
>
> > But then GC is not just true but also provable.
>
> What is provable in PA is "if GC is undecidable in PA then GC is
> true".

Yes. It is also provable in PA that "if GC is true then GC is provable in PA" (by Gödel's completeness theorem). Therefore it is provable in PA that "if GC is undecidable in PA then GC is provable (and hence decidable) in PA", and finally from this it is provable in PA that "GC is decidable in PA".

> If it is provable in some theory T that GC is undecidable in
> PA, then GC is provable in T.

True, but irrelevant to what I wrote.

> PA itself does not prove any statement
> undecidable in PA.

I never claimed it did.

−−
Esa Peuha
student of mathematics at the University of Helsinki
http://www.helsinki.fi/~peuha/
.

- ***Follow−Ups***:
  - ♦ ***Re: what makes it true?***
    - ◊ *From:* Robert Low
  - ♦ ***Re: what makes it true?***
    - ◊ *From:* Torkel Franzen

- ***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
  - ***Re: what makes it true?***
    - *From:*
  - ***Re: what makes it true?***
    - *From:* Timothy Little
  - ***Re: what makes it true?***
    - *From:* Torkel Franzen
  - ***Re: what makes it true?***
    - *From:* Timothy Little
  - ***Re: what makes it true?***
    - *From:* Torkel Franzen
  - ***Re: what makes it true?***
    - *From:* Esa A E Peuha
  - ***Re: what makes it true?***
    - *From:* Torkel Franzen

- Prev by Date: ***Re: convolution problem***
- Next by Date: ***Re: what makes it true?***
- Previous by thread: ***Re: what makes it true?***
- Next by thread: ***Re: what makes it true?***
- Index(es):
  - ***Date***
  - ***Thread***