Re: Godel proved maths inconsistent not incompleteness theorem

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- *From*: Charlie−Boo <shymathguy@xxxxxxxxx>
- *Date*: Fri, 28 Mar 2008 11:50:34 −0700 (PDT)

On Mar 28, 11:03 am, Aatu Koskensilta <aatu.koskensi...@xxxxxxxxx>
wrote:

> On 2008−03−27, in sci.logic, Charlie−Boo wrote:
>
> > You keep asking what system it applies to and I keep telling you that
> > it applies to ANY system for which the axioms hold. In particular, it
> > would apply to PA, Q, and any other system for which you set up the
> > axioms.
>
> How's your CBL proof of the unprovability of "Robinson arithmetic is
> consistent" in Robinson arithmetic coming up?

Was reading the article (thank you) and got sidetracked by Peter
Smith's book.

I can think of a couple of approaches to formalizing Godel's 2nd
Incompleteness Theorem (in PA), and will see if they apply to Q. In
PA, for any set of axioms (with fixed rules), there is a Turing
Machine that halts on just the theorems, and vice−versa. Then this TM
halts on all inputs iff the system is inconsistent, and a decision
procedure for consistency would solve the always−halting problem.
That is easy to prove unsolvable in CBL.

That is, CBL can prove Godel's 2nd Incompleteness Theorem for PA
pretty easily. Now, how about Godel−2 for Q? Gotta see what axioms
codify Q.

Thanks for asking.

C−B

> −−
> Aatu Koskensilta (aatu.koskensi...@xxxxxxxxx)

"Wovon man nicht sprechen kann, daruber muss man schweigen"
− Ludwig Wittgenstein, Tractatus Logico−Philosophicus

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