

# Re: Yet another inane amateur Godel question

---

*Source:* <http://sci.tech-archive.net/Archive/sci.math/2009-06/msg02151.html>

---

- *From:* Arturo Magidin <[magidin@xxxxxxxxxxxxxxxx](mailto:magidin@xxxxxxxxxxxxxxxx)>
  - *Date:* Wed, 17 Jun 2009 17:03:25 -0700 (PDT)
- 

On Jun 17, 6:48 pm, Ask me about System Design <[grpadd...@xxxxxxxxxx](mailto:grpadd...@xxxxxxxxxx)> wrote:

On Jun 17, 4:31 pm, Arturo Magidin <[magi...@xxxxxxxxxxxxxxxx](mailto:magi...@xxxxxxxxxxxxxxxx)> wrote:  
[ context snipped to save bandwidth ]

"Essentially undecidable"  
sounds more like philosophy, in which case I might be tempted to direct you to the great, late and lamented, Torkel Franzen's book on not abusing Goedel.

"Essentially undecidable" is also a technical term. In mathematical logic a (consistent first-order) theory T is essentially undecidable if any consistent extension S is also undecidable.

Thanks! Note, however, that Edward talked about "essentially undecidable problems", not essentially undecidable theories, so it would seem that the technical meaning is not what he had in mind.

So a consistent set of sentences T is essentially undecidable because we cannot add any set of new sentences (in the same language I believe) to make a set S containing T such that S is both consistent and decidable. Do a Web search to find examples of theories T which are and which are not essentially undecidable.

In the context of the original post, perhaps "problem" is being confused with "theory" ?

Or perhaps the technical term is being used philosophically, much like "normal" has a very precise technical meaning (several, in fact, depending on which particular subfield of math you are in), but none of them have anything to do with what a philosopher or a psychiatrist might have in mind when they ask "is what you are doing normal?"

Re: Yet another inane amateur Godel question

(-:

--

Arturo Magidin

.