

sci.logic: Re: ***** CAN ANYONE HERE DEFINE CHAITIN'S OMEGA ? *****

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"The Ghost In The Machine" <ewill@sirius.athghost7038suus.net> wrote

- >
- > *As it is, Chaitin's Omega has a problem in Mathworld;*
- > *the terminology |p| is breezily described as "the size*
- > *in bits of program p". I'll admit I'm not all that up*
- > *on my information theory, but if p has an encoding number,*
- > *the number of bits and the encoding number are going to*
- > *be roughly comparable unless someone plays some wacked-*
- > *out games with the mapping.*
- >
- > *This means that the value*
- >
- > *sum (all programs P) (2^{-numbits(P)})*
- >
- > *is not going to converge, as there will be approximately*
- > *2^j programs with numbits = j, if there's a 1-1 mapping*
- > *between N and every program. How that correlates*
- > *with the value*
- >
- > *sum (all halting programs P) (2^{-numbits(p)})*
- >
- > *is not all that clear to me without a highly specific*
- > *mapping between N and P.*

RIGHT! 3 days later someone else can see the defn cannot work at all.

- >
- > *At least I think I've gotten him to finally acknowledge that*
- > *1/3 is not in S_3 = { .3, .33, .333, ... }. Now if I can*
- > *get him to leap to the conclusion that*
- > *TX_10 = {k/10ⁿ: k,n in J, n >= 0} does not cover R... :-)*
- >

No, cite where I said it was in the set in the 1st place, your memory bridged a few too many gaps by suddenly introducing that example again

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after a year.

Herc