

# Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

**Source:** <http://sci.tech-archive.net/Archive/sci.logic/2005-01/2759.html>

---

**From:** |-|erc (H\_at\_r.c)

**Date:** 01/30/05

Date: Sun, 30 Jan 2005 20:33:10 +1000

"The Ghost In The Machine" <ewill@sirius.athghost7038suus.net> wrote  
> > > >MISTAKE : intentional assertion of an erroneous concept, not spelling, typos  
> > > >etc.  
> > > >  
> > > > Goodness knows what you \*indend\*. I suppose you could be  
> > > > meaning that the many mistakes in what you post are not  
> > > > "really" mistakes because you didn't intend them to be mistakes...  
> > > >  
> > > >In natural language context, say a courtroom, you must show INTENT.  
> > > >Stop backpeddling and find a mistake of mine.  
> > > >  
> > > >Any proposition that is false, that I "asserted as if true".  
> > > >Intent is just to clarify that it wasn't quoted, I meant  
> > > >what was wrote AS YOU SEE IT.  
> > > >  
> > > > Ah, so the part you snipped was meant as a hypothetical QUOTE? --  
> >  
> >  
> > What? I'm not DEFINING mistake here, I'm saying it must be  
> >  
> > 1/ something I wrote  
> > 2/ that something was an \*assertion\* of that fact  
> >  
> > I've spent too long in prison because police stand up to the judge and  
> > say COOPER SAID THIS "and then they will all die".  
> >  
> > I get asked DID YOU SAY THAT?  
> > And then I go to prison because that's what happens to unemployed writers.  
> >  
> > A mistake that was MY MISTAKE when taken IN CONTEXT.  
> >  
> > e.g. Ghost said the sum on the board is 50.  
> >  
> > That is not MY mistake because even though I wrote

sci.logic: Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

> > "the sum on the board is 50" yes judge  
> >  
> > I didn't intend that as factual. No idiot in his right mind  
> > would fall for the sum of all numbers on the blackboard trick  
> > except Ghost  
>  
> You're flattering me again. :-P  
>  
> My mind tends toward the literal. Perhaps that's why I'm good  
> at math; when one says "a equals b to n digits", I assume  
> they actually \*mean\* "a equals b to n digits", as opposed  
> to simply "a equals b", " $abs(a - b) < epsilon$ ", or  
> "horse happy apple".

so you admit you ignore the fact oo digits of antidiag are on the list  
in sequence. nobody ever mentioned 'equals'.

you REALLY should split the problem into sections.

antidiag is defined off the list  
oo digits are on the list \*\*\*\*\* you need this to think straight  
the number has an equal number on the list  
contradiction

you jump from  
antidiag is welldefined  
it has no equal  
oo digits of antidiag are not on the list. \*\*\*\*\* blatant lie, many infinite gamblers have lost due to this.

here's antidiag <32848943984984.....>

LOOK FOR MINUTE!

you'll notice it doesn't have a list attached.

what portion of digits have  $[xykxsk] = [finite | infinite]$

think of the question as a literal question if you want to play maths.

>  
> >  
> > WHO I WAS QUOTING. got it yet?  
> >  
> >  
> > >  
> > > > [Herc] : a UTM applied to any number always finished  
> > > > after time  $t, t \in \mathbb{N}$   
> > > >  
> > > > [Mr Fixer] : that is wrong! All systems of computation  
> > > > equiv. to TMs have representations of  
> > > > "algorithms" that never halt.

Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

sci.logic: Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

> >> >> >  
> >> >> >FIND ONE!  
> >>  
> >> *And thus the referent of "FIND ONE" was meant to be some actual mistake, not  
> >> a non-halting algorithm?*  
> >>  
> >> *If so, I misinterpreted you (which your sloppy English does make rather easy  
> >> to do). But my misinterpretation was reasonable, since you have REPEATEDLY  
> >> made the mistake of constructing arrays like this:*  
> >>  
> >> \ Input to the TM:  
> >> TM \ 0 1 2 3 ...  
> >> index +-----  
> >> 0 / 1 1 0 1 ...  
> >> 1 / 0 0 1 1 ...  
> >> 2 / 0 1 0 0 ...  
> >> ... ..  
> >>  
> >> *E.g, this is how you attempt to enumerate all computable binary sequences.  
> >> But this is a MISTAKE, since you make no allowance for the fact that  
> >> UTM(index,input) might not halt!*  
> >>  
> >> *This has been pointed out to you SEVERAL times, and you have never addressed  
> >> it satisfactorily: you say something like "... and let the value be 0 if  
> >> UTM(i,j) doesn't halt". But, D\*\*\*\*\*, whether it halts or not is NOT  
> >> COMPUTABLE in the general case. So for all I know, the your hypothetical  
> >> dialogue with "Mr. Fixit", wherein you show ingorance of the meaning of the  
> >> unsolvability of the halting problem, might have actually occurred!*  
> >>  
> >  
> >  
> > *OK, now you've got the idea. You find an example, very good!*  
> >  
> > *Anyone care to prove this is an error?*  
> >  
> > *Herc*  
> >  
> >  
> > *Is what an error?*  
> >  
> > *The above array is merely a representation of a function  
> > R : N x N -> sigma\*, where sigma is an alphabet (the  
> > star, of course, is from Kleene). If the machine halts,  
> > the function R(machine, input) is well defined. If the  
> > machine does not halt, the function R(machine, input) may  
> > or may not be defined, depending on whether the machine  
> > continually generates digits while moving its head to the  
> > right (in which case one gets something slightly outside of  
> > sigma\*, as sigma\* properly speaking contains all \*finite\*  
> > strings only), or does silly stuff like:*  
> >

Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

sci.logic: Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's

- > state 1: on '0', write '1', move right, state 2
- > state 2: on '0', write '1', move left, state 1
- > state 1: on '1', write '0', move right, state 2
- > state 2: on '1', write '0', move left, state 1
- >
- > which of course just jiggles the tape uselessly.
- >
- > If one wants to restrict the domain of the function  $R$  to
- > inputs that generate well-defined outputs, that's fine;
- > one will get a sparse matrix (or, if one maps the inputs
- > to column indexes, one gets infinite strings with blanks
- > and/or filler characters).
- >
- > And there will be blanks.  $R(\text{machine}, \text{input})$  will generate
- > blanks for those inputs with a 0 or 1 in the first tape cell.
- >
- > It is possible to modify the Turing machine by adding an
- > "output tape" that can only write and move right, if
- > it decides to write at all. A set of such modified machines is
- > isomorphic to the set of the original Turing machines (by redefining
- > the latter's alphabet) so this doesn't really buy one much apart
- > from convenience. In such a machine,  $R(\text{machine}, \text{input})$  is
- > always well defined.
- >
- > At this point I'm not sure what subproblem you wish to address.
- >

That's because you post without any idea what the topic is. you're not a ghost in the machine for nothing!

We agree Barb should find one of my particular usages of the array to call an error if she wants to pursue with this example.

Note : the array is fairly standard and even used for some halting proofs.

though I did add the mod 2 bit, give the coins a spin!

Herc

Re: So you want APPROACHABLE oo, REAL oo, INTEGER oo, COUNTABLE oo, HIGHER oo, MEGA oo's