

Re: November 25 is Infinite Clause day!!

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-Not to mention HERC777's understanding. The question is not whether
-the diagonal number's digits are within the list (most likely,
-they are

this is your 1st error, you overlook the fact all digit sequences to
infinite length are computable the conclusion of Cantor's proof relies
on the existence of a new sequence of digits which is clearly non
existent.

-We also need to construct Diag. This is fairly simple,
-and one can have many variants, so we need just pick one:

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-if $List(N,N) = 4$ then $Diag(N) = 5$ else $Diag(N) = 4$

this is your second error, your construction can never be realised.
its like saying construct the set of all sets that don't contain
themselves, if its a member of itself its not a member, if its not a
member of itself its a member. you can theorise the construction but
you cannot refute your basic premises of set theory because of one
theorem, regardless if a contradiction is formed.

this is all you are doing.
let $R = 1, 2, 3, 4...$
let $p \triangleleft R1, p \triangleleft R2, p \triangleleft R3...$
therefore R is incomplete.

your claim that p is a valid construction but its not rigorous.

Its like your Godel proof, you are trying to prove $!(proof(X) \leftrightarrow X)$
 $proof(X) \Leftrightarrow$ Exists a proof of X .

so you allow this theorem, $G \leftrightarrow ! proof(G)$ but you don't allow this
meta-consistency theorem $X \leftrightarrow proof(X)$. Either of these theorems will
work but they are mutually exclusive, no one here has shown a PROOF
that $!(proof(X) \leftrightarrow X)$. In AI the meta-consistency theorem is called
Truth Maintenance, only proven facts are allowed and never need to be
revoked. The alternate system is called belief revision. Godel's

proof only works in one automated theorem system.

Same with the set of reals, assume all possible combinations of digits are present in a countable list, with UTM(n, 0) they actually are. Now examine the construction of diag, it is a flawed construction! QED.

- Does an N exist such that for every positive M in J,
- Diag(M) = List(N,M)?
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- The answer clearly is no (if M=N Diag(N) != List(N,N) by construction).

This is your 3rd error. Why is it when I write 'obviously' it gets picked up yet everyone uses 'clearly' around here. What you all actually mean by 'clearly' is "clearly it's in the text book!" Your construction breaks the premise of a complete list, it doesn't contradict it.

An infinite number of people toss a coin RANDOMLY an infinite number of times. After 10 people have tossed a coin 5 times each, the 1st 3 places in the sequence are (tend to be) all covered.

- hhh..
- hht..
- hth..
- htt..
- thh..
- tht..
- tth..
- ttt..

there are 2 duplicates due to random spread.

After several million people have tossed a coin 30 times each, by the binomial distribution, all combinations have been covered up to 15 tosses.

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0000000000000001..010101010
0000000000000010..010101010
0000000000000011..010101010
0000000000000100..010101010
0000000000000101..010101010
0000000000000110..010101010
0000000000000111..010101010
0000000000001000..010101010
...
1111111111111110..010101010
1111111111111111..010101010

```

<- - - - - ->|<- - - - ->
all combinations still random

covered

The number of coins that get covered increases without bound, logarithmically. The length of 'covered combinations' is approx. $\log(\text{people doing coin tosses})$. As the countable list approaches infinite length..

As #people $\rightarrow \infty$, number of digits covered $\rightarrow \log(\infty)$.

Therefore an infinite list contains all sequences of {H, T} of infinite length.

1 HTHTHTHTHT
2 HHHHHHHHHH
3 TTTTTTTTTTTT
4 THTHTHTHTHT
..

Take the diagonal! HHTH...
Invert it! TTHT..

ALL SEQUENCES ARE PRESENT, TTHT.. is not a new sequence.

INFINITE people toss coins infinite times each, can you with 100% certainty form a NEW {H, T} sequence? CLUE : NO!! Inverting the diagonal is not a new sequence of tosses, and modifying the real diagonal does not a new real make.

Herc