

Re: Calculus XOR Probability

Source: <http://sci.tech--archive.net/Archive/sci.math/2006-04/msg05135.html>

- *From:* Virgil <vmhjr2@xxxxxxxxxxxx>
 - *Date:* Thu, 27 Apr 2006 14:13:21 -0600
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In article <MPG.1ebaa6a691b21d1c98ac72@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>, Tony Orlow <aeo6@xxxxxxxxxxxx> wrote:

David R Tribble said:

the Inverse Function Rule.

That hoary impossibility again? That is a stupid as TO's perpetual appeal to his largest finite natural argument.

If your "Inverse Function Rule" means that for every "unit interval on the real line" corresponding to some natural k that there is an corresponding "inverse" real x in each "unit interval" such as $(0,1]$, then this is simply the mapping:
 $x = 1/k$ for all $k=1,2,3,\dots$ $k = 1/x$ for all x in $(0,1]$.

But this mapping denumerates only some of the reals $(0,1]$ and omits a much larger number of them completely (e.g., $x=2/3$). So you can't use this mapping to say that the number of reals in a unit interval is the same as the number of unit naturals on the real line.

No, David, you misunderstand the Inverse Function Rule. Here it is again.

Given a quantitative set S

What is a "quantitative set" other than just a set? Until this is properly defined, the rest is nonsense.

mapped from the naturals

What set of naturals is TO using as his domain for this function. In defining functions which are to be inverted one must be very careful with domains and codomains.

using $f(n)$ for n
in \mathbb{N} ,

What is " \mathbb{N} "?

and given $g(x)$ s.t. $f(g(x))=g(f(x))=x$

This is nonsense unless functions f and g both have the same domain and the same codomain, which is patently not the case here.

(g is the inverse of the mapping function f) that the size of the set S between values A and B is $\text{floor}(g(A)-g(B)+1)$

Since A and B are undefined, the above is nonsense.

(I think I remember that correctly heh). This works for all finite sets mapped from some finite set of naturals, as long as N and S are order isomorphic.

What " N " is that? and if it and S are order isomorphic, there is no need for distinct sets, why not take $S = N$?

The rule is not itself a mapping, but a statement regarding the relationship between the size of the mapped set and the mapping function.

It is not only not a mapping, nor a function, it is not mathematically recognizable as anything at all.

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Now, the equality between the number of reals in the unit interval and the number of unit intervals on the real line does not directly follow from this rule, but it's consistent with it.

How is something consistent with a monumental inconsistency?

If we declare axiomatically that the number of reals in the unit interval is $\text{Big}'un$, each occupying $1/\text{Big}'un = \text{Lil}'un$ space within that interval, and the number of unit intervals on the real line is $\text{Big}'un$, then we can map each of the hypernaturals to a corresponding real in $[0,1]$ using a mapping function $f(x) = x/\text{Big}'un$.

And it immediately and logically follows that $2 = 1$.

So, why would I claim this is the correct solution?

Overweening ego?

I hope you got all that. You might want to mull it over a bit. :)

Not hardly!

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