

# Re: \*\* says: Definition: $\sum\{i \text{ in } \mathbb{N}\} i = 0$

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- *From:* Virgil <virgil@xxxxxxxxxxx>
  - *Date:* Sun, 08 Jul 2007 15:56:56 -0600
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In article <1183884971.653384.22820@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, WM <mueckenh@xxxxxxxxxxxxxxxxxxx> wrote:

On 7 Jul., 23:31, Virgil <vir...@xxxxxxxxxxx> wrote:

The question is only this: Can removal of the removable discontinuity yield another result than  $\lim_{x \rightarrow 0} \sin x / x = 1$ ?

The question is, what is your justification for attempting to remove the discontinuity in the first place?

To find the one and only true value.

What guarantees that there is a "one and only true value"?

Without an axiom system to rely on, one cannot prove that any such thing exists. And in any of the axiom systems I am aware of, it doesn't.

For  $\sin(x)/x$  the answer would be so as to have an everywhere continuous and differentiable function.

But for your 'P(x)/K(x)', there is no justification at all, since there is a direct way to find what the value should be "at oo".

I go the most direct way to find the value it has "at oo" – not the value it should have.

Without many unjustified and unstated assumptions on WM's part, there is

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no such thing as a 'value it has "at  $\infty$ ".

On the other hand, given any of the standard set theory axiom system, in which all assumptions are explicitly stated, one can prove that the ratio of number of paths to number of levels in an infinite binary tree is infinite.

On the other hand, the continuity of the paths guarantees that the result is the only one possible, in mathematics.

That may be what transpires in in WM's MathUnRealism, but it does not in actual mathematics, since by direct analysis, one can show that "at  $\infty$ " the ratio of paths to nodes must be infinite:

That argument is analog to: Contra has shown that  $\sin 0/0 = 100$ . Therefore l'Hospital is wrong in this case.

Only in WM's MathUnRealism does any such analog exist. In order to argue that  $\sin(0)/0$ , which simplifies to  $0/0$ , MUST BE equal to 1, WM must also argue that  $0/0$  MUST ALWAYS BE equal to 1.

Then according to WM, every derivative must always equal 1 at all points, and  $f(x) = |x|$  must have a derivative at  $x = 0$ , and lots more.

None of which occurs outside WM's MATHUnRealism.

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