

Re: Bringing back an old tetration curiosity?

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Source: <http://sci.tech-archive.net/Archive/sci.math/2007-09/msg03758.html>

- *From:* mike3 <mike4ty4@xxxxxxxxxx>
 - *Date:* Mon, 17 Sep 2007 11:45:06 -0700
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On Sep 17, 11:22 am, theronr...@xxxxxxxxxx wrote:

On Sep 17, 6:12 pm, theronr...@xxxxxxxxxx wrote:

<snip>

After rethinking I think that the above statement is a bit speculative. However I'm sure that there is no continuous $f: (-2; +\infty) \rightarrow \mathbb{R}$ that satisfies (1), (2) and (3). Here is why:

<http://img403.imageshack.us/img403/1466/sqrttetrxjx1.png>

This is a 5000x5000 plot of $f(x)$ for $-1 \leq x \leq 0 \leq y \leq 1$.

Theron

This is interesting. There appears to be a gentle undulation in it, oddly enough. It's intriguing to examine that in light of a graph of $^x(0.1)$ on the integers, which oscillates quite a bit.

I'd be curious to see your program, to root out various sources of approximation error, for example, though.

However if the method is indeed flawed, then it just might be possible that tetrating something to the one half does indeed take the square tetra-root after all...

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