

Re: Abolish Fractions?

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- *From:* quasi <quasi@xxxxxxxx>
 - *Date:* Thu, 31 Jan 2008 03:46:33 -0500
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On Wed, 30 Jan 2008 23:39:27 -0800 (PST), toni.lassila@xxxxxxxx wrote:

On 31 tammi, 02:38, [amzoti <amz...@xxxxxxxx>](mailto:amz...@xxxxxxxx) wrote:

Thoughts?

<http://www.usatoday.com/tech/science/mathscience/2008-01-23-fractions...>

I think he has it exactly backwards. They should stop teaching decimal expansions and concentrate more on fractions.

Yep, unless they're actually trying to churn out more and more cash register clerks.

People who don't understand that not every real number has a unique terminating decimal expansion are the biggest source of Cantor cranks and $1 \neq 0.999\dots$ idiots in this group.

Rational numbers are a deep concept, critically supporting a lot of later math, and so needs to be taught *_early_*, as early as possible, giving it time to be truly absorbed.

Moreover, why lock in base 10?

I wonder how one converts a decimal to base 2 without converting to a fraction first. I'm sure it can be done, but under the hood, it would effectively be a fraction conversion, anyway. Without explaining the method using the fraction concept, it would appear to the student as an essentially meaningless algorithm.

As an example, consider the algorithm to find square roots by hand. In my opinion, that one *_should_* be deferred, until Newton's method has

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been taught, at which point such an algorithm suddenly makes sense.

But back to decimals. Frankly, decimals are boring — there is no depth, except the underlying depth of fractions. So sure, teach them decimals early — bore them to death, show them the ugliest math, and hide the underlying conceptual basis, making sure they all hate math, even the ones that might have loved it. Deprive them of the simple pleasure of figuring out that $1/2 + 1/3 = 5/6$, and instead give them the dull $.5 + .333... = .8333...$

I think it's a troll made on purpose to draw attention.

Wow — everyone is trying so hard to apologize for him.

So you are suggesting that he publicly declared "Down with fractions!" and gave arguments to support it, all the while just trolling?

Not very credible, sorry.

It's sad that the general public is so ill-educated that to highlight problems in mathematics education it is necessary to discuss elementary school topics.

The problems start there.

The quality of math literacy of elementary school teachers is so low, it's scary. Take the elementary school teachers nationwide (in the US), and give them all a standardized test in elementary algebra. The results would be shockingly bad.

Now while it's true that elementary school teachers don't need to actually teach algebra (in the current curricula, anyway), you can't confidently teach a given level of math unless you've at least mastered a level or two above.

The solution is not to defer teaching fractions, but rather to train better teachers. Require more knowledge of them before we let them loose on our youth.

quasi

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