

Re: JSH: Brainstorming over, for now

## Re: JSH: Brainstorming over, for now

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*Source:* <http://sci.tech-archive.net/Archive/sci.math/2005-04/msg04589.html>

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- *From:* "W. Dale Hall" <[mailtodhall@xxxxxxxx](mailto:mailtodhall@xxxxxxxx)>
  - *Date:* Fri, 29 Apr 2005 19:59:08 GMT
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jstevh@xxxxxxxx wrote:

Ok, I've finished brainstorming on the SFT and how to best present it.

Does that mean you won't be taking people up on their offers to connect you to the NSA? What do you think of people who have to, have to, HAVE TO!!!! talk with you, and when you finally turn to them to say, "OK, what do you want?", they say, "um, never mind"?

What do you imagine that tells us about your likelihood of getting a hearing from them, ever?

It's clear you've never raised children, and equally clear that you've never gotten past that stage of your own childhood.

It's been a VERY useful few days as most importantly I've managed to air out my paranoia about the dangers of this research, and communicate loud and clear I hope, so that the people who are supposed to pay attention to problem areas assuredly noticed!

What does that mean? All you did was to throw a tantrum.

Which makes me feel a little silly for being worried--as nothing has happened--but then again, how do you know if you don't check?

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Most people don't assume that their every waking thought is the most brilliant event since the time of Archimedes. It was your own inability to engage in any sort of realistic self-evaluation that led to this exercise in vanity.

You have had more feedback, more useful feedback, and more pertinent feedback, than any five people I know. If you had the intelligence you claim, and weren't a self-absorbed cretin, you would have known that you didn't need to be freaking out. You consistently ignore the signs.

Just recall what came of your alleged "critique" exercise. Ostensibly a declaration of honest self-evaluation, it rapidly degenerated into your own self-promotion. You requested a proof that one could prove that an algebraic number could be expressed as the quotient of two coprime algebraic integers. You were \*so\* certain that it was an underlying assumption, despite a long history of having your baby version of mathematics shown to have been just that.

Here's the article from Google:

From: jst...@xxxxxxx  
Newsgroups: sci.math  
Subject: Re: JSH: Critique means slow, and thorough  
Date: 29 Mar 2005 15:46:11 -0800  
Organization: <http://groups.google.com>  
Lines: 144  
Message-ID:  
<1112139971.010172.257450@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

W. Dale Hall wrote:  
> jst...@xxxxxxx wrote:

<deleted>

> >  
> > If so, then that means that you might have an algebraic  
> > number  $x/y$  where  $x$  and  $y$  are members of that ring, but  
> > not algebraic integers.  
> >  
> > So consider what follows from the ring of algebraic numbers,  
> > which is also a field, as every algebraic number can be  
> > written as a ratio of coprime algebraic integers so I can

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> > show what happens in detail, so in algebraic numbers I can  
> > have  
> >  
> >      $a/b$   
> >  
> > where a and b are algebraic integers, so you have  
> >  
> >  $a/b = x/y$   
> >  
> > where in the ring where x and y are members, you may also  
> > have  
> >  
> >  $cx/cy = a/b$   
> >  
> > where cx and cy are algebraic integers, while x and y are  
> > not algebraic integers.  
> >  
> > Then coprimeness in the ring of algebraic integers does not  
> > mean coprimeness in the more inclusive ring.  
>  
> This is incorrect. If R and R' are commutative rings with  
> identity, R a subring of R', then whenever elements r,s of R  
> are coprime in R, then they are coprime in R'.  
>  
> >  
> > But if you don't realize that possibility, and worse, assume     > >  
that you've included all rings where the two key properties  
> > hold, you can have an odd thing, where you can prove  
> > "coprimeness" by relying on coprimeness in the ring of  
> > algebraic integers, and algebraically find that two numbers  
> > are not coprime, and thus have the appearance of proving two  
> > different and opposite things.  
> >  
>  
> Can't happen. Here's why.  
>  
> Let r,s be coprime in R. That means there are u and v in R  
> such that  
>  
>              $ur + vs = 1.$   
>  
> Now, r,s and u,v are in R. R is a subring of R'. Thus, r,s and  
> u,v are elements of R'. The operations of R extend to  
> operations of R', so the equation  
>  
>              $ur + vs = 1$   
>  
> also holds in R'. Thus, r and s are coprime in R'.  
>

That's correct, but can you now prove that for every case

$a/b$

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where  $a$  is an algebraic integer and  $b$  is an algebraic integer,  
and  $a$  is coprime to  $b$  that you can find a construction

$$ax + by = 1$$

where  $x$  and  $y$  are algebraic integers?

If so I'd think that'd be a powerful argument against my claims.

Why don't you try?  
\*\*\*\*\*

Note the request? Just so I didn't cheat, you made sure to be explicit:

So that there's less confusion, assume you start with  $a/b$  being  
the root of a non-monic polynomial irreducible over  $\mathbb{Q}$ , as if  $a/b$   
is rational that's trivial to handle.

Now, given an algebraic number  $a/b$  that is the root of a non-  
monic polynomial irreducible over  $\mathbb{Q}$ , can you prove that you can  
find  $x$  and  $y$  such that

$$ax + by = 1?$$

> > A simple analogy that I've given before is to consider 6 and  
> > 2 in the ring of evens.  
> >  
>  
> Bogus example: no identity element.  
>

Not really, as in fact, that's essentially what happens with the  
ring of algebraic integers where people \*assume\* that given  $a$   
and  $b$  coprime algebraic integers that you can always find

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$$ax + by = 1$$

where  $x$  and  $y$  are algebraic integers, but that is never proven.  
\*\*\*\*\*

Note your claim?

It's a BFC, where by assuming that coprimeness in algebraic integers proves global coprimeness, people assume that you can find  $x$  and  $y$  above.

It's a circular position, or can you prove otherwise?

Can't leave it alone, can you? Gotta get that dig in: mathematicians only assume, they never prove.

I think that you may \*believe\* you can prove that without ever having seeing a proof and now with the challenge you can see that, or you can show I'm wrong.

If I'm wrong here, then I really have to reconsider quite a few things.

James Harris

Now, let's recall what happened:

1. I responded with a proof of exactly what you claimed was never proven.
2. You choked, claiming, among other things:

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My point is that the "field of rationals" is in fact, not a field, as that's a misnomer.

My point is that mathematically, there's no way to block convergent infinite sums, so what happens is by \*saying\* they are blocked, you step into a non-math area, which falls apart if you do anything that depends on your arbitrary choice.

Now this issue has come up before, where I've noted that even doing something as simple as adjoining  $1/2$  to the ring of integers will give you reals.

3. You then decided that what you had to do was \*stop\* the critique of your own work, and critique Dedekind, instead:

Well for the question about when the problem entered into the field of mathematics, that's when, and I guess I didn't figure on Dedekind having made the mistake, but I guess I should have.

The proof of a problem with the current understanding of the ring of algebraic integers, which if certain sci.math posters are right, refutes a famous claim by Dedekind, which forms the basis for the theory of ideals, so basically, I've shot down the theory of ideals.

Now I'm fairly confident that there has to be a mistake in Dedekind's work as I've faced a mystery for a while now, which is the fervent nature of defense of certain odd positions.

What do we have, then? When faced with clear evidence of your failure to understand some elementary mathematics, you decide that you don't really need to go any further into that self-examination thing. No, it's much more likely that a person whose work has been virtually \*raked over the coals\* for over a hundred years, who must have goofed. Not you. It's never you who has missed some fine (or not-so-fine) point.

JSH momentary whim trumps a century of dedicated research.

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Does the absurdity of this fail to strike you?

My fears about working on the factoring problem go back for YEARS and have affected a lot of things for me, so it's a tremendous relief to be here now with what I feel is a major result, and it looks like everything is fine.

No worries.

Oh, so there's no need to go to the NSA? How do you interpret this? You're right (because that's the definition of right), factorization can be done by infants using ordinary household materials, but we're really save, and the NSA doesn't need to get in on the game?

Do those two things fit together at all?

Things get a lot more boring from here for the rest of you, as there's less need for me to talk anything out, as I think I've learned what I needed to know, and a lot less interest on my part in this subject area anyway, as I'm getting that been there done that feeling.

Extreme mathematics is about the extreme--pushing limits and the envelope.

I would have imagined a flimsier sort of paper is what's getting pushed. The kind that comes on a squat cylindrical roll, and is perforated at regular intervals of about 4 inches. At the end of the process, I'm thinking a little chromium lever gets pressed.

Maybe I burned myself out ahead of time on factoring, worrying about it so much, but now it just seems like so much old hat.

Here I sit, broken hearted ...

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Of course, papers to be sent off, but I have a backlog now. I've been sitting on papers versus working them out to be sent off, as it's all just kind of tedious and annoying--the social crap.

I told you there might be crap involved. That and some sort of paper.

In any event, the world is still here. The economy didn't crash, and I'm feeling stupid but giddy.

Sometimes fears are just uncalled for, and unnecessary, but you have them anyway.

There's always a moral to the story. I'm impressed by your ability to reach into that bag and always pull out the one that shows how you're a thoughtful, if clueless, person.

I suppose if one views the moral as the philosophical equivalent of being tucked into ones bed by mommy, then a comfy-cozy moral is as good as any.

James Harris

Dale

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