# Re: JSH: Blocking and ring of algebraic integers

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- *From*: JSH <jstevh@xxxxxxxxx>
- *Date*: Thu, 02 Aug 2007 01:10:44 −0000

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On Jul 31, 4:27 pm, JSH <jst...@xxxxxxxxx> wrote:

> Brainstorming out a new research approach can difficult in that corrections are needed to cover errors, omissions or missed logical steps.
>
> So I'm doing a new post which has the full result with correction necessitated by counterexamples to previous ones and omissions that I noticed.
>
> Turns out that the key to all that freaking arguing over the years was noting that if you have a polynomial with integer coefficients and a positive leading coefficient in an integral domain then the factorization
>
> P(x) = (g_1(x) + 1)*(g_2(x) + 1)

I was wrong. Turns out there is a simple fix though.

Oddly enough, with the factorization that IS blocked you also get another crucial result.

> where g_1(0) = g_2(0) = 0, is BLOCKED if the g's are not polynomials nor are they square roots of polynomials, which is just this remarkable, odd little result that NO ONE would notice unless they went looking for it, as you cannot see it with polynomial factorizations, of course.
>
> So now you get this odd thing with the distributive property as then
>
> p_1*p_2*P(x) = (p_1*g_1(x) + p_1)*(p_2*g_2(x) + p_2)
>
> where the p's are differing prime numbers is blocked from the ring of algebraic integers as well, when the g's are non−rational with non−zero rational x.

> But it gets weirder!!!
>
> Because you CAN have the factorization
>
> p_1*p_2*P(x) = (f_1(x) + p_1)*(f_2(x) + p_2)
>
> in the ring of algebraic integers with the f's not polynomials nor square roots of polynomials as long as they are not both equal to 0 when x =0.
>
> And you can because you can keep substituting to get to
>
> p_1*p_2*P(x) = (h_1(x) + p_1*p_2)*(h_2(x) + p_1*p_2)

And now we're at the nitty−gritty, as assume now that p_1*p_2 can be divided off in the ring of algebraic integers as a function!

Then assuming that w_1(x)*w_2(x) = p_1*p_2

you'd have

P(x) = (h_1(x)/w_1(x) + w_2(x))*(h_2(x)/w_2(x) + w_1(x))

but now you can so something simple as let

h_1(x)/w_1(x) + w_2(x) = j_1(x) + 2

and

h_2(x)/w_2(x) + w_1(x) = j_2(x) + 1

and you have

P(x) = (j_1(x) + 2)*(j_2(x) + 1)

and the blocked factorization.

Yeah I cheated a bit as I gave the proper form for a blocked factorization when the functions are 0 when x=0 with functions that are not, correcting the prior incorrect form.

Notice that p_1*p_2 dividing off as functions is specifically blocked by the ring of algebraic integers casting the objections of posters like Dik Winter, Arturo Magidin, Rick Decker and William Hughes into the abyss of failure.

Note then as I now give the correct form that

P(x) = (g_1(x) + 2)*(g_2(x) + 1)

cannot exist in the ring of algebraic integers when P(x) is a polynomial with integer coefficients, g_1(0) = g_2(0) = 0, and the g's are not rational with rational x.

THAT is the ultimate set of conditions which not only proves my case but directly blocks prior claims.

Now I think that much of the arguing with me has been about weird American class warfare, which traces back to lower class Brits looking at their upper class in a peculiar and distorted way which they transmitted to their descendants, many of whom are now US citizens.

If so, then posters arguing with me, now that it is over, may see this as life or death and KEEP FIGHTING as if their lives depended on it.

My hope is that instead they will now concede to what is mathematically correct and end the Math Wars.

Remember, what is mathematically correct was ALWAYS so, but we just had to discover the truth.

James Harris

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