Re: JSH: Polynomial multiples

Source: http://sci.tech−archive.net/Archive/sci.math/2004−10/5278.html

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From: Matt Grime (*mattgrime_at_o2.co.uk*)
Date: 10/18/04

Date: Mon, 18 Oct 2004 14:49:52 GMT

On Sun, 17 Oct 2004 16:43:46 −0700, James Harris wrote:

> *If you had even a basic math education then you learned about*
> *multiples of polynomials−−you learned to divide them off.*
>
> *None of you have ever been taught that multiples of polynomials are*
> *varying functions that vary with the polynomial's variable, unless*
> *you're learning from sci.math'ers.*
>
> *Like P(x) = 4x^2 + 4x + 4 has a multiple of 4.*
>
> *If some freaking poster were arguing for years that the factors of*
> *P(m) have 4 divided off as function of x, would you be nodding along?*
>
> *No.*
>

4 divides P(x) in this case in the ring of polynomials, and as such isn't relevant to your discussion about divisibility in the ring of algebraic integers.

After all, 2 divides x^2+x for all integer x in the integers (not in the algebraic integers, just the integers), yet how it divides the factors x and x+1 does depend on x.

6 also divides x(x−1)(x+1) for all integer x, again in the integers, want explain how?

> *But when yahoos argue with me, claiming that multiples of polynomials*
> *divide off as freaking functions of the polynomial variable, you*
> *nincompoops nod along, agree with them and call ME crazy.*
>