Re: FLTMA: A little group theory

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- *From*: "The Dougster" <DGoncz@xxxxxxx>
- *Date*: 8 Oct 2006 20:31:54 −0700

Thank you Gerry. Why reinvent the wheel, right?

Our text stops at Galios theory.

Do you or any reader think the proposition at hand to be provable?

If so, then would Galios theory, another set of theories, or Galios
representations be the tool or tools to use?

Proposition:

In Z+, the positive integers,
with
(1) x,y, and z pairwise coprime,
(2) one of {x,y,z} even,
(3) x<y<z<(x+y),
(4) p an odd prime,

(x^p + y^p) == 0 mod z &
(z^p − x^p) == 0 mod y &
(z^p − y^p) == 0 mod x

has no solutions. We can call this FLT+ for the moment. :)

Note FLT =/=> FLT+, but FLT+ ==> FLT.

Doug

Gerry Myerson wrote:

> In article <1160121826.815782.50870@xxxxxxxxxxxxxxxxxxxxxxxxxxx>,
> "The Dougster" <DGoncz@xxxxxxx> wrote:
>
>> Gerry Myerson wrote:
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>>> In article
>>> <1160096826.870833.309200@xxxxxxxxxxxxxxxxxxxxxxxxxxx>,
>>> "The Dougster" <DGoncz@xxxxxxx> wrote:

Let me summarize.

The whole point of this thread is to see if we
can show that there are
no counterexamples to FLT, because there
are no primitive
counterexamples, because there are no
candidate counterexamples
(x,y,z,p) with

(1) p odd prime
(2) gcd(x,y,z) =1 or x,y,z pairwise coprime
(3) exactly one of {x,y,z} even
(4) $x<y<z<(z+y)$
(5) (x^p + y^p) == 0 mod z
(6) (z^p − x^p) == 0 mod y
(7) (z^p − y^p) == 0 mod x

using group theory or whatever we happen
to have lying around. :)

Unless whatever you happen to have lying around includes
Galois representations and the like, your chances of success
are pretty much zero.

−−
Gerry Myerson (gerry@xxxxxxxxxxxxxxx) (i −> u for
email)

Yeah, I think I have those lying around. Yes, I do. Galios field theory
is in the text, but not in our syllabus.

Galois representations, and the other tools Wiles & Taylor used,
are not the same thing as Galois theory, but several steps beyond.
See Ash & Gross, Fearless Symmetry, for some idea of what you're
up against.

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Gerry Myerson (gerry@xxxxxxxxxxxxxxx) (i −> u for email)

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