

# Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF

*Source:* <http://sci.tech-archive.net/Archive/sci.math/2005-08/msg05519.html>

- *From:* george ghiata <[george\\_ghiata@xxxxxxxxxxx](mailto:george_ghiata@xxxxxxxxxxx)>
- *Date:* Sun, 28 Aug 2005 16:41:28 EDT

I hope You read all My rep;ies to you on this topic  
 They are explicit as quas's.  
 He got to regnoise that the key ideaa of the proof is original and  
 it is mine.No another math.come out with the ideaa shown at the  
 end of the proof.Yes,everything else has been known before  
 but the "spark" has been given by me with  
 the final of the proof which beleive it or not thousands of mathematicien miss it to find.Quas just does not  
 believe that could happened.and my proof must be wrong somewhere.But as he goes on the path of the proof  
 he is perplex that he can not find a math argument against it but  
 only confirmations of its validity.And he still can not  
 beleive it!! But he is forced by his reason to beleve it!

>  
 > matt271829-n...@xxxxxxxxxxx wrote:  
 >> quasi wrote:  
 >>> On 28 Aug 2005 05:41:14 -0700,  
 > matt271829-news@xxxxxxxxxxx wrote:  
 >>>  
 >>>>quasi wrote:  
 >>>>> On 25 Aug 2005 14:52:20 -0700,  
 > matt271829-news@xxxxxxxxxxx wrote:  
 >>>>>  
 >>>>>>  
 >>>>>>>george ghiata wrote:

>>>>>>> OBSERVATION:  
 >>>>>>> X,Y ,Z relative Prime numbers  
 >>>>>>> Let's say that  $X^3+Y^3=Z^3$   
 >>>>>>> Let"s take:  
 >>>>>>>  $X+Y=W$   
 >>>>>>> and  
 >>>>>>>  
 >  $R=X^2-X*Y+Y^2=W^2-3*W*Y+3*Y^2=W^2-3*W*X+3*X^2$   
 >>>>>>>  
 >>>>>>> You mean  $R=X^2-X*Y+Y^2$ , but yeah, OK.  
 >>>>>>>  
 >>>>>>>  
 >>>>>>>> When Z is not divisible by 3 we see that

Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF

>  $(X+Y)=W$   
>>>>>> > and R do not have any common divisor .  
>>>>>>  
>>>>  
>>>>[snip verbiage]  
>>>>  
>>>>>  
>>>>> Here is a proof of that part:  
>>>>>  
>>>>> Assume:  
>>>>>  
>>>>> (1) X,Y,Z are relatively prime  
>>>>> (2)  $X^3 + Y^3 = Z^3$   
>>>>> (3) Z is not a multiple of 3  
>>>>>  
>>>>> Then R,W are relatively prime, where  
>  $R=X^2-X*Y+Y^2$  and  $W=X+Y$ .  
>>>>>  
>>>>> proof:  
>>>>>  
>>>>> Suppose instead that  $(R,W)>1$ . Let p be a  
> common prime factor of R,W.  
>>>>>  
>>>>>  $p|W$  and  $W*R=Z^3 \Rightarrow p|Z \Rightarrow p \text{ .ne. } 3$  [since Z is  
> not a multiple of 3]  
>>>>>  
>>>>>  $d|W^2-R \Rightarrow d|3*X*Y \Rightarrow p|X*Y$  [since p .ne. 3]  
>  $\Rightarrow p|X$  or  $p|Y$ .  
>>>>>  
>>>>> I assume you mean  $p|W^2-R \Rightarrow p|3*X*Y \Rightarrow p|X*Y$   
>>>>>  
>>>>>  
>>>>> Without loss of generality, assume  $p|X$ . But  
> then since also  $p|Z$ , the  
>>>>> equation  $Y^3=Z^3-X^3$  implies  $p|Y^3$ , hence  $p|Y$ ,  
> contradicting the  
>>>>> assumption that X,Y,Z are relatively prime.  
>>>>>  
>>>>>  
>>>>>Great!  
>>>>>  
>>>>>Then  
>>>>>  
>>>>> $(R,W) = 1$  and  $R*W = Z^3 \Rightarrow R$  and  $W$  are perfect  
> cubes.  
>>>>>  
>>>>>So  $R = z^3$  and  $W = u^3$  for some integers z and  
> u.  
>>>>>  
>>>>>And  
>>>>>

Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF

>>>  $Z^3 = R \cdot W = z^3 \cdot u^3$   
>>>  $\Rightarrow Z = u \cdot z$   
>>>  
>>> Continuing with GG's proposed proof:  
>>>  
>>>> When Z is divisible by ,that is  $Z = u \cdot 3 \cdot z$  we see  
> that  
>>>> W and R have as common  
>>>> divisor only 3  
>>>> Therefore  $W = (u^3) \cdot 3^{3-1}$  and  $R = 3 \cdot z^n$   
>>>>  
>>>> I assume this means "When Z is divisible by  
> 3..."  
>>>>  
>>>> Anyone care to offer a proof of this next bit?  
>>>>  
>>>> Assume  $3|Z$ .  
>>>>  
>>>> Then X,Y are not multiples of 3 since if 3  
> divides one of them, the  
>>> equation  $X^3 + Y^3 = Z^3$  together with  $3|Z$  would  
> imply 3 divides the  
>>> other, contrary to the assumption that X,Y,Z are  
> relatively prime.  
>>>>  
>>>> Hence  $X \cdot Y$  is not a multiple of 3.  
>>>>  
>>>> Now  $W \cdot R = Z^3 \Rightarrow 3|(W \cdot R) \Rightarrow 3|W$  or  $3|R$ .  
>>>>  
>>>> Then the relation  $R = W^2 - 3 \cdot X \cdot Y \Rightarrow R = W^2 \pmod{3} \Rightarrow$   
> both R,W are multiples  
>>>> of 3 (since we know at least one is).  
>>>>  
>>>> But  $3|W \Rightarrow 9|W^2 \Rightarrow 9$  does not divide R (since 9  
> does not divide  
>>>>  $3 \cdot X \cdot Y$ ). Hence R is a multiple of 3 but not a  
> multiple of 9.  
>>>>  
>>>> Then  $W \cdot R = Z^3 \Rightarrow W \cdot R$  is a multiple of 27 so W must  
> be a multiple of 9.  
>>>>  
>>>> Since we know that in general  $(W,R) = 1$  or 3, in  
> this case we must have  
>>>>  $(W,R) = 3$ . Then the integers  $W/9, R/3$  are relatively  
> prime and since the  
>>>> product  $(W/9) \cdot (R/3)$  is a perfect cube  $(= (Z/3)^3)$ ,  
> it follows that  $R/3$ ,  
>>>>  $W/9$  are both perfect cubes.  
>>>>  
>>>> So one can write  $W = 9 \cdot u^3$ ,  $R = 3 \cdot z^3$  and then Z can  
> be expressed as

## Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF

>>>  $3*u*z$ , as claimed.  
>>>  
>>> So this part of the proof is also correct.  
>>>  
>>> Without looking too carefully, it appears that in  
> the next parts of  
>>> the proof we are about to be dragged through a  
> lot of elementary  
>>> algebra -- substitutions, simplifications, etc,  
> all of which is  
>>> probably correct. This partly camouflages any  
> later flaw, since one  
>>> has to actually go through all the algebraic  
> preliminaries to get at  
>>> whatever is the key proof idea.  
>>>  
>>> quasi  
>>  
>> Great stuff!  
>>  
>> George, why don't make your proof as well laid out  
> and easy to follow  
>> as quasi's posts? That might help your cause!  
>  
> or ... erm ... as typo-free as mine!  
>  
.

---

### • *Follow-Ups:*

- ◆ **[Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF](#)**  
    ◇ From: quasi
- ◆ **[Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF](#)**  
    ◇ From: matt271829-news

### • *References:*

- ◆ **[Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF](#)**  
    ◇ From: matt271829-news
- Prev by Date: **[Re: Finding a function, given its properties...](#)**
- Next by Date: **[complete theory of abelian groups?](#)**
- Previous by thread: **[Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF](#)**
- Next by thread: **[Re: Bring Math Arguments against this FERMAT LAST THEOREM PROOF](#)**
- Index(es):
  - ◆ **[Date](#)**
  - ◆ **[Thread](#)**