The part of Fermat's theorem

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Abstract: We can't have an equation where the left hand side is $4(2C+1)$ and the right hand side is $8C$. The more detailed properties of odd and even numbers will be covered later in this article. What's important is that when a number or an equation maintains certain properties about odd and even numbers. It will be difficult and there may be no other way to solve it.

Keywords: Basic math. odd number and even number. Untenable equation

Make $M^{2^m}=(n)$  $M$ is odd. So let's call that $O$ $(2n+1)^2=4n(n+1)+1=8C+1$ Any odd number to the second power is $8C+1$

Extension $a^k=4kC+1$ when $a$ is odd and $k$ is even. In fact, $a^k=4^2dC+1$ k=(d).

$a^2+b^2=16C$ when $a+b=8C$ $a,b$ are odd.

Let $a=8C+1$ $b=8C-1$ or $a=8C+3$ $b=8C-3$ Equation was set up

There must be an even number of terms in the equation, and the $O$ of these terms is the lowest and the same.

So, We omit the higher term of $O$. Just verify that it's big enough at the end. If $8k$ and $8k^2$ appear, $8k^2$ can be ignored when $k$ is even.

- $X^m+Y^m=A^m$
  When $X$ plus $Y$ has no divisor with $m$
  We can get the following properties
  $X^m+Y^m=(X+Y)Z^m$ ($X,Y,Z,m$ is odd)
  $X+Y=(>=3)$ (by $m>=3$
  $Z^m=X^{m-1}X^{m-2}Y+............XY^{m-2}+Y^{m-1}$

  $Z^m=X^{m-1}X^{m-2}Y+............XY^{m-2}+Y^{m-1}=(X+Y)C+mY^{m-1}$
  Since $m$ is odd, $m$ minus 1 is even
  $Y^{m-1}-1=(>=3)$
  When $X+Y=(>=3)$
  $Z^m-m=(>=3)$
  Known $m$ is odd
  Easy to know
  $m=4k+1$. When $Z=4n+1$
  $m=4k+3$. When $Z=4n+3$
  (note: when $m=4k+1$ $Z=4k+3$, $Z^m-m=(1).m=4k+3$ $Z=4k+1$ are in same way)
  Known
  $2Z^m-X^{m-1}Y^{m-1}=(X-Y)^2(X^{m-3}+X^{m-5}Y^2+............+X^2Y^{m-5}+Y^{m-3})$  ............ (1)
  $2(Z^m-1)+1-X^{m-1}1-Y^{m-1}=(X-Y)^2(X^{m-3}+X^{m-5}Y^2+............+X^2Y^{m-5}+Y^{m-3})$
  $X+Y=(>=3)$  @
  Known $X-Y=(1)@$ (note $X,Y$ are odd)
By \(Z=4n+1\) \(m\) is odd

The left-hand side is \((> =3)\), and the right-hand side is (2).

Invalid

When \(Z=4n+3, m=4k+3\)

After that, it's easy to find out about the nature of the \(n, k, Z, m,X,Y\).

\[Z^m+1=4(n+1)(1-Z+Z^2-\ldots+Z^{m-1})=4(n+1)(4k+3-(Z+1)-(Z^3+1)+\ldots)
+(Z^{m-1}))=4(n+1)((1+Z)C+4k+3)=4(n+1)(4C-1)\]

We want to determine the fundamental properties of \(X,Y,n,\) and \(k\)

\[Z^m=X^{m-1}X^{m-2}Y+\ldots X^{m-2}Y+Y^{m-1}=(X+Y)C+mY^{m-1}
\]

\[\ldots+4n(4k+3)3^{4k+2}+3^{4k+3}-4k-3=(X+Y)C+m(Y^{m-1}+1)\]

Let’s assume the right-hand side is big enough to O

In this solution, even if the value of the current \(X\) and \(Y\) combination is small after the O operation, we can assume that it is large. In this way, if it is wrong, it is regarded as an error, and if it is correct, it proves that the O operation value of \(X\) and \(Y\) is very large.

\[\ldots+4n3^{4k+3}3^{4k+3}4k-3=(>=4)\]

So \(n+k+2=(>=2)\)

So \(n=(1) k=(>=2) \) or \( n=(>=2) k=(1)\)

The following proves that \(n=(>=1)\)

We can be sure that \(Z^m=\ldots\) is now fully established.

So, we use \(Z^{2m}\). This is a general approach.

Because there are many proofs here, for unnecessary trouble, it is necessary to reduce the unknown.

You must ensure that there is a correspondence between \(Z^m\) and \(X^{m-1}, Y^{m-1}\) such as \(Z^m-Y^{m-1}, Z^m+1-Y^{m-1}+2\).

Because we only know

\[\text{“}2Z^mX^{m-1}Y^{m-1}=(X+Y)^2(X^{m-2}Y+\ldots+X^{m-2}Y+Y^{m-1})\text{”}\]

So \((2Z^m-X^{m-1}Y^{m-1})(2Z^m+X^{m-1}+Y^{m-1})\text{ is best choice.}\)

\[2(2Z^m-X^{m-1}Y^{m-1})(2Z^m+X^{m-1}+Y^{m-1})=4Z^{2m}-(X^{m-1}+Y^{m-1}+2)^2+4(X^{m-1}+Y^{m-1}-2)\]

\[4(2C+1)(-8(n+1)+X^{m-1}+Y^{m-1}+2+32C)=4*3^{8k+6}+4*4n*(8k+6)*3^{8k+5}+4*(4k+3)(8k+5)*16n^{2*3^{8k+4}}+\ldots+4(X^{m-1}+Y^{m-1}-2)+128C\]

\[4(2C+1)(-8(n+1)+32C+X^{m-1}+Y^{m-1}+2)=4*3^{6}-32n+64(4k+3)(8k+5)n^{2*3^{8k+4}}+\ldots+4(4X^{m-1}+Y^{m-1}+2)+128C\]

\[4(2C+1)(-8(n+1)+32C+X^{m-1}+Y^{m-1}+2)=-32-32n+4(X^{m-1}+Y^{m-1}+2)+128C+64(4k+3)(8k+5)n^{2*3^{8k+4}}\]

By \(X+Y=(>=3)\)

Know \((X^{m-1}+Y^{m-1}-2)=(>=4)\)

So \(n=(>=1)\) (2)

Before that, I did n’t know what the result would be. I did n’t know my goal.
I could only get it closer to my goals. Of course, there must be (4n+3)\(8k+6=\cdots+4n(8k+6)\) in the process. In response to use \(Z^{2m}\)

\(N\) is determined, and there are no other properties

There are also many proofs below. We deliberately make \(4-2X^{m-1}Y^{m-1}\) appear in the equation. Found that it is beneficial to increase the value of the \(O\) operation result of \(4-2X^{m-1}Y^{m-1}\). Because one of our purposes is to increase the value of the \(O\) operation of a known item. When \(a+b=(5)\), because \(a=(1)\) \(b=(1)\) is true, when the \(O\) operation value of \(b\) increases, that is, \(b=(2)\) is not true and we are happy to see it.

\[(2Z^m+X^{m-1}+Y^{m-1}+4)(2Z^m+X^{m-1}+Y^{m-1})=4Z^{2m}+4+2(2Z^{m+1}+X^{m-1}+Y^{m-1}-2)+X^{m-1}+Y^{m-1}+2\]

(by when \(a+b=8C\) \(a^2+b^2-2=16C\))

\[32(2C+1)=4(3^{2k+6}+1)+4-2X^{m-1}Y^{m-1}+64C\]

\[32(2C+1)=4(3^{6}+1)+4-2X^{m-1}Y^{m-1}+64C\]

\[32(2C+1)=4(3^{2}+1)+4-2X^{m-1}Y^{m-1}+64C\]

\[X^{m-1}+Y^{m-1}-2=(>=5)\] (3)

I did not expect such a result. Regarding the result, we can only choose a new equation. Because the original equation can no longer produce new results. And the new equation does not necessarily have a considerable result. Just like before, use \(Z^{2m}\) is to add a new equation. I have tried many times to get these valuable equations.

\(X^{m-1}+Y^{m-1}-2\) is determined, and there are no other properties

\[4XY(X^{m-3}+X^{m-5}Y^2+\cdots)\]

\[+X^2Y^{m-5}+Y^{m-3}+4Z^m-2(Z^{m+1})=4(2X^{m-1}+X^{m-3}Y^2+\cdots+Y^{m-1})-2(Z^{m+1})\]

By (3) and \(X^{m-1}=8C+1\) \(X^{m-3}Y^2=8C+1\) \(\cdots\)

\[=32C+8k+8n+16\]

\[4XY(X^{m-3}+X^{m-5}Y^2+\cdots)\]

\[+X^2Y^{m-5}+Y^{m-3}+4Z^m-2(Z^{m+1})=4XY(X^{m-3}+X^{m-5}Y^2+\cdots)\]

\[+X^2Y^{m-5}+Y^{m-3}+X^{m-1}+Y^{m-1}-2+(2Z^m-X^{m-1}Y^{m-1})\]

\[=4XY(X^{m-3}+X^{m-5}Y^2+\cdots)\]

\[+X^2Y^{m-5}+Y^{m-3}+X^{m-1}+Y^{m-1}-2+(X-Y)^2(X^{m-3}+X^{m-5}Y^2+\cdots)+X^2Y^{m-5}+Y^{m-3}\]

\[=(X+Y)^2(X^{m-3}+X^{m-5}Y^2+\cdots)+X^2Y^{m-5}+Y^{m-3}+X^{m-1}+Y^{m-1}-2=(>=5)\]

In addition

\[4XY(X^{m-3}+X^{m-5}Y^2+\cdots)\]

\[+X^2Y^{m-5}+Y^{m-3}+4Z^m-2(Z^{m+1})=4(2X^{m-1}+X^{m-3}Y^2+\cdots+Y^{m-1})-2(Z^{m+1})\]

\[=32C+8k+8n+16\]

\[32C+8k+8n+16=(>=5)\]

\[k+n=(1)\]

By (2) \(n=(>=1)\).
k=(≥1)
k is determined, and there are no other properties

This is exactly what we imagined before. $Z^m=X^{m-1}X^{m-2}Y+$
-XY$^{m-2}+Y^{m-1}$ is used here. Or, $n$ and $k$ appears on the left side of the equation. The right side of the equation uses the known equation to find the result of its $O$ operation.

Know $n=(≥2)$ $k=(1)$ or $n=(≥1)$ $k=(≥2)$

Now, start to find the attributes of $X$ and $Y$. Because it is needed later. As I said before, suppose the value of the $O$ operation of the $X$ and $Y$ items is large enough. Now, start to prove that the value of the operation $O$ of $X$ and $Y$ is large enough.

By $(3)$ $X^{m-1}+Y^{m-1}=2(≥2)$
When $X, Y$ are 16C-3, 16C+3 or 16C+5, 16C-5 or 16C+1, 16C+7 or 16C-1
16C-7, $X, Y$ do not meet $X^{m-1}+Y^{m-1}=2(≥2)$
Such as $X=16C-3, X^{2k+1}=16C-3^{2k+1}=16C-3+3(1-3^{2k})$ by $k=(≥1), X^{2k+1}=16C-3$
$X^{m-1}+Y^{m-1}=X^{4k+2}+Y^{4k+2}-2=(16C-3)^2+(16C+3)^2-2=32C+16$
So $X, Y$ are 16C-1, 16C+1 or 16C+7, 16C-7 or 16C+5, 16C+7 or 16C-3
16C-5

Know $XY=16C-1$
$Z^m+1=4(n+1)(1-Z+Z^2+\cdots+Z^{m-1})=4(n+1)(1+Z^2+\cdots+Z^{m-1}-Z^3-\cdots-Z^{m-2})$
$Z^m+1=4(n+1)(8C+2k+2-Z(2k+1))=4(n+1)(8C+2k+2-(4n+3)(2k+1))$
By $n=(≥1)$ $k=(≥1)$
$Z^m+1=32C-4(n+1)$
$Z^m$ is determined, and there are no other properties
$Z^{m+4n+5}=64C+4n(3^{4k+3}+3^{4k-1}+4n+5=64C+16n(2C+1)+3^3(3^{4k-1}+32$
Science $n=(1)$ $k=(≥2) 16n(2C+1)=32+64C (3^{4k-1})=64C$
Science $n=(≥2)$ $k=(1) 16n(2C+1)=64C (3^{4k-1})=64C+32$
So $Z^{m+4n+5}=64C$
$Z^m=64C-4n-5$

This is also necessary because it can reduce the amount of subsequent calculations. In other words, $Z=-4n-5$

$2(X+Y)^2(X^{m-3}X^{m-5}Y^2+\cdots+Y^m)(X^{m-1}Y^m)=
-(4Z^m+8XY(X^{m-3}X^{m-5}Y^2+\cdots+
+Y^m)(X^{m-1}X^m-1)-8X^{m-1}(X(X+Y)(X^{m-3}X^{m-5}Y^2+\cdots+
+Y^m)+Y^{m-1})^2+2(Y+X)^2(Y-X)^2(X^{m-3}X^{m-5}Y^2+\cdots+Y^m)^2$

$-(Z^m+2XY(X^{m-3}X^{m-5}Y^2+\cdots)$
\[ +Y^{m-3})(Y^{m-1}X^{m-1})-2X^{m-1}(X(X+Y)(X^{m-3}+X^{m-5}Y^2+\cdots+Y^{m-3}))=(D) \quad (4) \]

D is a big number

\[ Y^{m-1}X^{m-1}=(Y-X)C \]

Here, \( X-Y = 16C-2 \) is used cleverly when \( X = 16C-1 \) or \( X = 16C-7 \). ……

This is another new equation. Because at any time \( Z^m=64C-4n-5 \) will cause the equation to hold. However, \( m \) can be not given directly. \( X, Y \) can appear directly in any equation. However, \( X \) and \( Y \) are \( 16C-1, \ 16C+1 \). ….. \( C \) is an arbitrary number, so that the O operation value of a certain two items is very small. So, we have to consider -1 or -7 …… in \( 16C-1, \ 16C+1 \) instead of \( 16C \)

\[ (((64C+4n+5-2(16C-1)(8C+2k+1))(Y-X)((X^{2k}+X^{2k-2}Y^2+\cdots+Y^{2k-2}))=\cdots \]

\( X \) is \( 16C+5 \) or \( 16C-3 \)

By \( Y-X=16C-2 \) and \( \quad (5) \)

\( (4n+5+2(2k+1)+5)=(>=4) \)

\( (4n+5+2(2k+1)-3)=(>=4) \)

Invalid

\[ X \text{ is } 16C+7 \text{ and } Y \text{ is } 16C-7 \]

\( Y-X=16C+2 \quad X^2=(16C+7)^2=16C+49=16C+1 \)

By \( \quad (4) \)

\[ -(Z^{m+2}XY(X^{m-3}+X^{m-5}Y^2+\cdots+Y^{m-3}))=(D) \]

\[ (((64C+4n+5-2(16C-1)(8C+2k+1))(Y-X)((X^{2k}+X^{2k-2}Y^2+\cdots+Y^{2k-2}))=\cdots \]

\( (4n+5+2(2k+1))=\cdots \)

Invalid

So \( X \) is \( 16C+1 \) or \( 16C-1 \)

Know \( X+Y=(>=6) \) (by \( 4k+1 \) is error so \( m=5 \) is error so \( X+Y=(5) \) is error)

\( X=16C+1 \quad Y=16C-1 \) easy to konw \( C_1+C_2=(>=1) \) so \( C_1-C_2=(>=1) \)
XY=32C-1
\[ Z^m = X^{m-1}X^{m-2}Y + \ldots + \ldots + XY^{m-2}Y^{m-1} \]
\[ Z^m = (X+Y)C + mX^{m-1} \]
X is 16C+1 or 16C-1

Easy to know 4k+4n+8=32C Z^m=64C-4n-5
(4n+3)(-1+Z^{m-1}+\ldots+2k+1)=Z^m
When k=(1)
32+12n+48k+48n^2+144nk+3*32n^2+3*64k=Z^m+4n+5+512C

\[ (4n+3)(1+(16n^2+24n+8)(2k+1+(16n^2+24n+8)((2k+1)k+8C)))=Z^m \]

(4n+3)(1+(-1+Z^{m-1}+\ldots+2k))=Z^m
\[ (4n+3)(1+(16n^2+24n+8)(2k+1+(16n^2+24n+8)((9)2k-1+2(9)2k-2+3(9)2k-3+\ldots+2k+16C)))=Z^m \]
\[ (4n+3)(1+(16n^2+24n+8)(2k+1+(16n^2+24n+8)((9)k^2+1+10k)=Z^m+4n+5+1024C \]
Z^m=XY^{2k+1}C-(4k+3)X^{2k+1}Y^{2k+1}

This shows that \( Z^m+(4k+3)X^{2k+1}Y^{2k+1} \) cannot be very large after the \( O \) operation. Because \( Z^m=(4n+3)^4k+3 \) k=(>=1) \ldots

When a,b,m is odd.
a^m+b^m=(a+b)(a^{m-1}+\ldots+b^{m-1})=(a+b)(ma^{m-1}+(a+b)C)=(a+b)(m+4(m-1)C+(a+b)C)
Because a^{m-1}=4(m-1)C+1
So a^m+b^m=(a+b)m+d  The O operation of d is large, when the O operation of a+b is large

1-3^{4k}=1-(4-1)^{4k}=16k-16*4k*(4k-1)/2+\ldots+16k+32k+\ldots
In future calculations, please keep more terms when expanding.
The next strategy is to use \( a^m+(4k+3)^m(XY)^m=C \) to get \( a+(4k+3)(XY) \). Use \( (4k+3)(XY)=aXY^{2k+1}+C \) and then change \( (4k+3)(XY)^{2k+1} \) to \( (4n+3)^{4k+3} \) In this process, there will be many single k, n, nk.
First find k=(>=2), then find that k has a large in O operation, and then substitute(4n+3)^{8k+6}-(4k+3)^2(XY)^{4k+2}=2^{11}C
\[ 3^{2k}(4n+3)^{4k+3} + 3^{2k}(4k+3)(XY)^{2k+1} = 256C \]
\[ (4n+3)^{4k+3} + (4k+3)(XY)^{2k+1} - 8nk + 8k^2 - 16k^3 = 256C \]
\[ ((4n+3)^3 + (4k+3)(XY))(2k+1) - 8nk + 8k^2 - 16k^3 = 256C \]

By \( (XY)^{2k} = 32C \),
\[ 2^{k+1} = 64kC_1 + 1 \]
\[ ((4n+3)^3 + (4k+3)(XY)^{2k+1})(2k+1) - 8nk + 8k^2 - 16k^3 + 64kC_1(2C+1) = 256C \]

By \( Z^m = (X+Y)^2C - (4k+3)X^{2k+1}Y^{2k+1} \)
\[ ((4n+3)^3 + (4k+3)(XY)^{2k+1})(2k+1) - 8nk + 8k^2 - 16k^3 + 64kC_1(2C+1) = 256C \]

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By \( Z^m = (X+Y)^2C - (4k+3)X^{2k+1}Y^{2k+1} \)
-4n*3*(4n+3)^{4k+1} + 16n^2(4n+3) + (9(4n+1)(4n+3)-Z^m)(2k+1)-3*32k+5*8*nk+5*16k=256C

By 32+112n+48k+48n^2+144nk+3*32n^2+3*64k=Z^m+4n+5+256C
-4n*3*(4n+3)+16n^2(4n+3)+(9*4n-48k-144nk-3*64k)(2k+1)-3*32k+5*8*nk+5*16k=256C
-4n*3*(4n+3)+16n^2(4n+3)+(-48k-144nk)2k+9*4n=256C
k=(>=2) (use nk before it)

3^{3k}(4n+3)^{6k+3}+(4k+3)3^k(XY)^{2k+1}=1024C
(4n+3)3^{k}(4n+3)^{6k+2}+(4k+3)^{3k+1}(XY)^{3k+1}+32kC+4k^2(2C+1)+16k(2C+1)=1024C
4n(4n+3)^{6k+2}+3^{k+1}(4n+3)^{6k+2}+(4k+3)^{3k+1}(XY)^{3k+1}+4k^2(2C+1)+16k(2C+1)+32kC=1024C
4n(4n+3)^{2}+(3(4n+3)^{2}-(4k+3)(XY))(3k+1+4k(2C+1)+128C+4*3k(3k+1)(2C+1)+8k+16k+32kC+16k(2C+1)=1024C
4n(4n+3)^{2}+(3(4n+3)^{2}+(4k+3)(XY)^{2k+1})(3k+1+4k(2C+1)+128C)+4k^2(2C+1)+8k+32kC=1024C

By Z^m=(X+Y)^2C-(4k+3)X^{2k+1}Y^{2k+1}
4n(4n+3)^{2}+(3(4n+3)^{2}-Z^m)(3k+1+4k(2C+1)+128C)+4k^2(2C+1)+8k+32kC=1024C

By 32+112n+48k+48n^2+3*32n^2+144nk+64n^3+64kC=Z^m+4n+5+1024C (by k=(>=4))
4n(4n+3)^{2}+(-9*4n-48k-3*32n^2-144nk-64n^3-64kC)(3k+1+4k(2C+1)+128C)+4k^2(2C+1)+8k+32kC=1024C
8k-27*4nk+32kC-48k+4k^2(2C+1)=1024C
(3-8)*8k+4nk+32kC+4k^2(2C+1)=1024C
3*8k+4nk+32kC+4k^2(2C+1)=1024C

When k=(2)
By 4n+4k+8=32C
n+2=(2)
n+6=(>=3)
(6+n)4k+32kC+4k^2(2C+1)=1024C

k=(>=3)
So k=(>=6)

Z^m=3^{4k+3}+4n(4k+3)3^{4k+2}+16n^2(4k+3)(2k+1)3^{4k+1}
+(4k+3)(2k+1)(4k+1)64n^33^{4k-1}+2^{11}C
Z^m=3^{4k+3}+4n3^{4k+3}+16n^23^{4k+2}+64n^33^{4k}+2^{11}C=27+27*4n+9*16n^2+64n^3+27*16k+2^{11}C

(4n+3)^{8k+6}-(4k+3)^{2}(XY)^{4k+2}=2^{11}C
Let $Y$ be even.

$X^N + Y^N = Z^N$, $X, Y, Z$ co-prime

$X^N = (Z^{N/2} + Y^{N/2}) (Z^{N/2} - Y^{N/2})$, $(Z^{N/2}, Y^{N/2})$ co-prime

$N > 2$, $N = m/n$, $m, n$ are odd

$X_1^N = Z^{N/2} + Y^{N/2}$

$(X_1^{N/4} + Y^{N/4}) (X_1^{N/4} - Y^{N/4}) = Z^{N/2}$

$X_1^{N/2} + Y^{N/2} = Z_1^{N/2}$

In the same way

$X_2^{N/4} + Y^{N/16} = Z_2^{N/4}$

When $(a^{1/4} + b^{1/4}) (a^{1/4} - b^{1/4}) (a^{1/2} + b^{1/2}) = (1)$

$a^{1/4} - b^{1/4} = (1/4)$

In addition

$Z_1^{N/2} - X_1^{N/2} = (>= 1/2)$

$Y^{N/4} = (>= 1/2)$, $Y^N = (>= 2)$

$Z_2^{N/4} - X_2^{N/4} = (>= 1/4)$

$Y^{N/16} = (>= 1/4)$, $Y^N = (>= 4)$

$Y^N$ infinite

When $m, n$ are even, in the same way.

Now let’s think about the following questions.

$Z^m = (X + Y)^2 C - (4k+3)(X)^{2k+1} Y^{2k+1}$

$(4n+3)^{4k+3} + (4k+3) X^{2k+1} Y^{2k+1} = (X+Y)^2 C$

We’re going to use $A^{2C+1} + B^{2C+1} = (A+B)(2C+1)$, note $Z^m = 64C-4n-5$

In the above equation, $A$ plus $B$ is equal to $(D)$, and $D$ is large enough.
By $X^{2k+1}Y^{2k+1}$ it constrains $2C+1$ to be $2k+1$ or $4k+1$ or $6k+1$ or $8k+1$

Notice they're both $4C+1$ Rather than $4C-1$

When we expand parts of $(4n+3)^{4k+3}$, part of $(4n+3)^{4k+3}$ becomes part of $A$.

That part of $(4n+3)^{4k+3}$ is $E$. The other part is $F$.

By $A^{2C+1}+B^{2C+1}=(A+B)(4C+1)$

$E+(F+(4k+3)XY)(2C+1)=2^{11}C$

$E+(F-Z^m)(2C+1)=2^{11}C$

$E+F+4C(F-Z^m)-Z^m=2^{11}C$

$4C(F-Z^m)=2^{11}C$

So it doesn't make sense to change $n$ because $X^{2k+1}Y^{2k+1}$ constrains $2C+1$
to be $2k+1$ or $4k+1$ or $6k+1$ or $8k+1$

And we found that $k=(1)$ is always true.

Because, $K$ is what we added. When we add a $k$, we definitely add a $k^2$. Or $k*C$ is too big and meaningless. The way it came about was too simple.

Of course, $n*k$ is the product of change. What is remarkable is that it is chaotic. Unconstrained. We see it in many wrong cases. Each time, it's going to be an $8n*k$ one day, a $16n*k$ the next.

So there has to be a situation. It takes it out of the base case.

And then we need one that has $k$ in it and it $=(G) G$ is low number.

And then we have to get out of the way.

Because the original formula is not going to get us what we want.

Because it's in this form,

$(4n+3)^3+(4k+3)X^{2k+1}Y^{2k+1}=(X+Y)^3$

So if we still have a solution to this, we can definitely solve for $X$ and $Y$. 