# ANDY BEAL'S CONJECTURE ( PART1 AND PART 2) 

ALEXANDER O. WELLS<br>* E-mail of the corresponding author: alexanderowells@yahoo.com


#### Abstract

This paper provides an algebraic mathematical proof to the below and proves their validity. 1) The Andy Beal's conjecture 2) The Fermats last theorem 3) The Wells summation conjecture 4) The Goldbach conjecture 5) The existence of solitary numbers eg - 10


Keywords: conjecture, vector analysis, three dimension, two dimension, increment, complex, law of algebra, prime factor, domain, algorithm, input, integer, real number line, dual set, magnitude, resultant, compute, binary, hack, twelve, shrink, standard, probability, linear equation, intersect, finite, $2 \%$ logarithmic, surds, narrow range, $98 \%$, one dimensional space, compare, determine, flow, generalization, infinity, independent, error, constant (k), dependent, graph, discretely, unaffected, HSIV, 4-input synchronous tetra- set, S4ISC, frequency, per binary input (BPI), aeroplane, run way, air friction, air resistance, take off angle, plane crash, geometry, optimum, slope, partially collapsed, totally collapsed, supremacy, incoherence, airflight study, name, equation index or factor, honour, constant factor, economics, start discontinuity, man, robot, creation, simultaneously, cage theory, like energies.

## 1. Introduction

Ever since man was born on the planet earth for millions of ages did man ever could believe the power of algebra. a question is algebraic-readable. Earth dwellers deviced mysterious and unreadable means to solve readable problems in order to claim glory on their brainlessness. Having a problem that cannot be solved in a readable form for ages doesn't cause shame on any one. The problem should be left alone. It only means when the right person with the full intellectual capacity is born to the world he would solve it. But devising crooked and mysterious means for people to accept as solutions to these problems and awarding this empty heads with prizes for doing nothing is a very grievous offence. That a car cannot fly today does not deny its existence. it does not deny the existence of a portable flyable car engine. A person like Andrew Wiles will go and put the turbo engines of a boeing cargo plane and fit it into the car. so it can fly and this will not be a practical flying car. one of these mysterious techniques -they use , they call it real analysis.

I call it senseless and meaningless analysis and such a field must be scrapped in order for true intelligence to be revealed and embraced. what is the problem that is beyond the power of algebra in number theory. if numbers on the real number line are seeable and perceivable. so why should proves to provable set problems be mysterious to read. Andrew wiles did not prove the validity of the Fermat's last theorem. He only wrote mysterious and unreadable stories which he called the proof of this theorem and his group cooked in secret mysterious awards for him for doing nothing and for stealing another persons work prize in advance. Andrew wiles proof of the Fermat is unreadable and meaningless to anybody in the world. An algebraic question needs an algebraic step by step solution which must be readable in the algebraic language by any body who understands the law of algebra irrespective of the minor age of this person and his academic attainment. In summary, the Andy beals conjecture, the Fermats last theorem (376yrs), the Wells summation conjecture, the Goldbach conjecture ( 271 yrs ), the existence of solitary numbers, the proof of solitary 10 are all proven algebraically in this paper . so any one can read it and understand it. whether a scientist or non scientist.

## 2. Main body

$a^{x}+b^{y}=c^{z}$ $\qquad$
Instruction 1: level the question. Level the question means level the left and right side of equation (1) or find a way of eradicating the powers on the left and right side to form a linear equation without any power if possible. instruction 2: Apply vector analysis.

In three dimensions a vector has three components.
so $\mathrm{a}=a_{i}+a_{j}+a_{k}, b=b_{i}+b_{j}+b_{k} c=c_{i}+c j+c_{k}$
In two dimensions a vector has two components .........4)
so $\mathrm{a}=a_{i}+a_{j}, b=b_{i}+b_{j}, c=c_{i}+c_{j} \ldots \ldots \ldots \ldots$. (5)
recall (1).
$a^{x}+b^{y}=c^{z}$ $\qquad$
substitute (5) in (1).................(7)
$\left(a_{i}+a_{j}\right)^{x}+\left(b_{i}+b_{j}\right)^{y}=\left(c_{i}+c_{j}\right)^{z}$
since $\mathrm{x}, \mathrm{y}$ and z are all numbers on the real number line. not necessarily taken as integers as a means of control. however all greater than 2 .
define $\mathrm{g}, \mathrm{h}, \mathrm{p}$ to be three numbers on the real number line. they are not necessaril y integers and they can any of a fraction, decimal, surd, etc.
they can also be positive or negative. finally, they are not
necessaril y equal in value. (8a)
define the below. .(8b)
let $x=2+g \ldots \ldots \ldots \ldots \ldots .$. ........)
let $y=2+h . \ldots \ldots . . . . . . . .$. . $b$ )
let $\mathrm{z}=2+\mathrm{p}$. (.10a)
$\mathrm{g}=$ the increment in x above the binary $\qquad$
$\mathrm{h}=$ the increment in y above the binary $\qquad$ ..(10c)
$\mathrm{p}=$ the increment in z above the binary.
so the following conditons on $\mathrm{g}, \mathrm{h} \mathrm{p}$ are below. (.11)
$\mathrm{g}=\mathrm{h}=\mathrm{p} \ldots \ldots \ldots . .(12)$
$\mathrm{g}=\mathrm{h}>\mathrm{p} \ldots \ldots \ldots .$. (13)
$\mathrm{g}=\mathrm{h}<\mathrm{p} \ldots \ldots \ldots . .$. .(14)
$\mathrm{g}>\mathrm{h}=\mathrm{p} \ldots \ldots \ldots . . . .(15)$
$\mathrm{g}<\mathrm{h}=\mathrm{p} \ldots \ldots \ldots \ldots . . .(16)$
$\mathrm{g}=p>h \ldots \ldots \ldots \ldots \ldots$ (17)
$g=p<h \ldots \ldots \ldots \ldots \ldots$.........)
$\mathrm{g}<\mathrm{h}<\mathrm{p} \ldots \ldots \ldots \ldots . .$. (19)
$\mathrm{g}<\mathrm{h}>\mathrm{p} . \ldots \ldots . . . . . . .(20)$
$\mathrm{g}>\mathrm{h}>\mathrm{p} \ldots \ldots \ldots . . . .$. (21)
$\mathrm{g}>\mathrm{h}<\mathrm{p} \ldots \ldots \ldots . . . .$. (22)
$\mathrm{g}, \mathrm{p}, \mathrm{h}$ can also be complex.
so we can have $\mathrm{g}(1+\mathrm{i})$ or $\mathrm{h}(1+\mathrm{i})$ or $\mathrm{p}(1+\mathrm{i})$ (e.t.c).
however the complex case of $\mathrm{g}, \mathrm{p}, \mathrm{h}$ is not treated.
let $x=2+g \ldots \ldots \ldots \ldots \ldots .$. .........)
let $y=2+h . \ldots \ldots . . . . . . . . .27)$
let $\mathrm{z}=2+\mathrm{p} \ldots \ldots \ldots \ldots \ldots .$. .........
recall (8).
$\left(a_{i}+a_{j}\right)^{\mathbf{x}}+\left(b_{i}+b_{j}\right)^{\mathrm{y}}=\left(c_{i}+c j\right)^{\mathrm{Z}}$.
substitute (26), (27), (28) in (8)
$\left(a_{i}+a_{j}\right)^{2+g}+\left(b_{i}+b_{j}\right)^{2+\mathrm{h}}=\left(c_{i}+c j\right)^{2+\mathrm{p}}$.
using the law of algebra below. $\qquad$
$(\mathrm{s}+\mathrm{v})^{2+\mathrm{m}}=(\mathrm{s}+\mathrm{v})^{2} .(\mathrm{s}+\mathrm{v})^{\mathrm{m}}$
(31) becomes the next equation below
$\left(a_{i}+a_{j}\right)^{2} .\left(a_{i}+a_{j}\right)^{\mathrm{g}}+\left(b_{i}+b_{j}\right)^{2} .\left(b_{i}+b_{j}\right)^{\mathrm{h}}=\left(c_{i}+c_{j}\right)^{2} .\left(c_{i}+c_{j}\right)^{\mathrm{p}}$.
let $\left(a_{i}+a_{j}\right)=d$.
so $\left(a_{i}+a_{j}\right)^{2}=d^{2}$
let $\left(b_{i}+b_{j}\right)=\mathrm{f}$.
$\operatorname{so}\left(b_{i}+b_{j}\right)^{2}=f^{2}$
let $\left(c_{i}+c j\right)=\mathrm{k}$.
$\operatorname{so}\left(c_{i}+c j\right)^{2}=k^{2}$
recall (35).
$\left(a_{i}+a_{j}\right)^{2} .\left(a_{i}+a_{j}\right)^{g}+\left(b_{i}+b_{j}\right)^{2}\left(b_{i}+b_{j}\right)^{h}=\left(c_{i}+c_{j}\right)^{2}\left(c_{i}+c_{j}\right)^{p}$
substitute (37), (39), (41) in 35 $\qquad$
$d^{2}\left(a_{i}+a_{j}\right)^{g}+f^{2}\left(b_{i}+b_{j}\right)^{h}=k^{2}\left(c_{i}+c j\right) p$.
divide both sides of (44) by the right side $\left(k^{2}\left(c_{i}+c j\right) p\right)$.
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}+f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}{ }_{\left(c_{i}+c_{j}\right)} p}=\frac{k^{2}\left(c_{i}+c_{j}\right)}{} k^{2}{ }_{\left(c_{i}+c_{j}\right)} p$.
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}=1$. $\qquad$
$\operatorname{let} \mathrm{A}=\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)}$.
let $\mathrm{B}=\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}$.
substitute (48) and (49) in (47). $\qquad$
$A+B=1$
(52) means - you are solving a problem in which two numbers
add up to 1 .
if 0 and 1 .

# so non of the unknowns $-\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$ in (1) is a factor or a prime 

$$
\begin{equation*}
\text { factor of the other in this }(0,1) \text { domain. } \tag{54}
\end{equation*}
$$

so (54) is contrary or against or disproves A. beales conjecture
first idea of having prime factors condition in this theoretically
known domain(55)
recall (52) ..... (56)
$\mathrm{A}+\mathrm{B}=1$(52)
(52) is a computer algorithm which takes an input A which is any numberon the real number line whether a positive or negative integer, decimal,( 0.0000001 ), fraction, surd etc as step 1.(57)
The algorithm then solves the below equation as step 2 ..... (58)
$\mathrm{B}=1-\mathrm{A}$.(59)
so the algorithm computes the number B in step 2 ..... (60)
so A and B form a dual set $(\alpha, \beta)$(61)
Dual set means needs two inputs to process (1).(62)
Case study tounravel the A.beales conjecture in totality
recall (52) ..... (63)
$\mathrm{A}+\mathrm{B}=1$ ..... (52)
so we take a simplesolution to the problem
let $\mathrm{A}=0$ then $\mathrm{B}=1-\mathrm{A}=1-0=1$ ..... (64)
let $\mathrm{A}=1$ then $\mathrm{B}=1-\mathrm{A}=1-1=0$so dual sets $(\alpha, \beta)=(0,1),(1,0)$.
so $\alpha=0, \beta=1, \alpha=1, \beta=0$. ..... (67)
$\mathrm{A}=\alpha$
$\qquad$ .(68)
from the two dual sets in (66); 0 and 1 satisfies both $A$ and $B$ ..... (9)
using the $(0,1)$ dual set for A ..... (70)
recall (48)
$\qquad$ (7)$\mathrm{A}=\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)}$.
substitute the 0 of (70) in 48.
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)}{ }^{p}=0$.
$\left.d^{2}\left(a_{i}+a_{j}\right)\right)^{g}=0 \times k^{2}\left(c_{i}+c_{j}\right) p$
$d^{2}\left(a_{i}+a j\right)^{g}=0$.
divide the left and right side of (75) by $d^{2}$ (76)
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{d^{2}}=\frac{0}{d^{2}}$.
$\frac{1 .\left(a_{i}+a_{j}\right)^{g}}{1}=\frac{0}{d^{2}}$
$\left(a_{i}+a_{j}\right)^{g}=0$.
Find the $g$ root of both side of (79).
$\left(a_{i}+a_{j}\right)^{\frac{g}{g}}=0 \frac{1}{g}$
$\left(a_{i}+a_{j}\right)^{\frac{1}{1}}=0$.
$\left(a_{i}+a_{j}\right)^{1}=0$
$\left(a_{i}+a_{j}\right)=0$.
$a_{i}=-a j$
(85) means the x component of the number " a " in (1) is equal in magnitude to the y component of the number "a" and both have an opposite direction. their resultant is zero. (86)
recall (48)
$A=\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)} p^{2} \ldots \ldots \ldots \ldots . .88$
substitute the 1 of (70) in (48).
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)}$ p $=1$.
cross multiplyin (88). $\qquad$
$d^{2}\left(a_{i}+a_{j}\right)^{g}=1 \times k^{2}\left(c_{i}+c_{j}\right) p$
$d^{2}\left(a_{i}+a_{j}\right){ }^{g}=k^{2}\left(c_{i}+c_{j}\right) p$ $\qquad$
For the left side to be equal to the right side in (93) then the first equation that must hold in simplicityis below.
$d^{2}=k^{2} \ldots \ldots \ldots$ (95)
$d=k$.
recall (36) and (40).
$d=a_{i}+a_{j}$
$k=c i+c j$
compute (96)
$a_{i}+a_{j}=c_{i}+c j$ (99)
from (99) .................(00)
$a_{i}=c_{i} \ldots \ldots \ldots \ldots \ldots \ldots \ldots$................
$a j=c j$
(101) means $a=c$ .(103)
(103) provides additional proof to the above fact that non of the unknowns $\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$ is a factor of another, neither is it a prime factor of another but that $\mathrm{a}=\mathrm{c}$ means they are exactly equal in the known theoretical domain. $\qquad$ (16)
(102) means the second components are also equal or identical.
so in 3-D the third components are also equal as below.
$a_{k}=c_{k}$. .(106)
the second relation that must hold in (93) is below. $\qquad$ (107)
$\left(a_{i}+a_{j}\right)^{g}=\left(c_{i}+c_{j}\right)^{p} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . \ldots(107 a)$
$a_{i}+a_{j}=c_{i}+c j$
$a_{i}=c_{i} \ldots \ldots \ldots \ldots \ldots \ldots$................
$a_{j}=c j$.
(109), (110) provides additional proof to (101), (102)
$g=p$ .(11)
(111) means that the number 111 is a or the most important number in binary computation.
how is it most important - it can used to hack a computer system that uses binary computation $\qquad$ (112)
(111) also means that for any increase above the (binary) 2 on either a or c . thisincrease must be thesame on both a and c .
so for A beales conjecture to hold in (1). the power of "a" must always be equal to the power of " $c$ " for any value of either powers of " a " or " c ". this power value can be any number on the real number line. so it can be an integer, decimal (0.00001), fraction, surd etc. This proves fermat last theorem as validin the dual set $(0,1)$ in the known theoretical domain. since the powers of " a " and " c " are always thesame and " $\mathrm{a}=\mathrm{c}$ " so $\mathrm{b}=0$. and 0 is not a positiveinteger.

Vol.3, No.13, 2013
so theoretical common sense willsay once the dual set changes then fermats last theorem will be invalid ( $100 \%$ - probable). but thisis not true unless proven to be true. Also since thepowers of $\mathrm{a}, \mathrm{b}, \mathrm{c}$ can take other values which are non integer. then

## A. beal conjecture is not validin the dual set $(0,1)$. since it says

 that $\mathrm{x}, \mathrm{y}, \mathrm{z}$ are integers. this leads to the newly found statement that " there is no number called an integer" in the dual set $(0,1)$.also since $\mathrm{a}=\mathrm{c}$ and their powers are always equal so that $\mathrm{b}=0$.
then this proves that A.beals proposition is not a new proposition
but thesame as fermats last theorem in the dual $\operatorname{set}(0,1)$.
or say A.beals proposition is invalid in a sense by
using differrent letters $\mathrm{x}, \mathrm{y}, \mathrm{z}$. so all the three letters ( $\mathrm{x}, \mathrm{y}, \mathrm{z}$ ) should be of
one type in the dual set $(0,1)$. $\qquad$
recall (49). $\qquad$ .(115)
$\mathrm{B}=\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)}$.
using the dual set $(0,1)$ for $B$
similarly as above
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)}$ p $=0$.
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)}{ }^{p}=1$
from (117).
then $b_{i}=-b j$
from (118).
$f^{2}\left(b_{i}+b_{j}\right)^{h}=1 \times k^{2}\left(c_{i}+c_{j}\right){ }^{p}$.
$f^{2}\left(b_{i}+b_{j}\right)^{h}=k^{2}\left(c_{i}+c_{j}\right) p$
for the left side to be equal to the right side in (123) then.
$f^{2}=k^{2}$.
$f=k$.
substitute (38) and (40) in (126).
$b_{i}+b_{j}=c_{i}+c j$
from 128 . ..... (29)
$b_{i}=c_{i}$ ..... (30)
$b_{j}=c j$ ..... (31)
similar as above. ..... (13)
from (123) again
$\left(b_{i}+b_{j}\right)^{h}=\left(c_{i}+c_{j}\right)^{p}$
$b_{i}+b_{j}=c_{i}+c j$
$b_{i}=c_{i} \ldots \ldots \ldots \ldots \ldots \ldots(36)$
$b_{j}=c_{j} \ldots \ldots \ldots \ldots \ldots \ldots$..............
$h=p$.
from (138) theincrement in the power of " b " above the binary is thesame as the increase in the power of "c" above the binary in the $(0,1)$ dual set for B . so here $\mathrm{a}=0$. so since 0 is not a positive integer then fermat last theorem is validin thisdual set......(139).
similar as above $\qquad$ (140)
so the validity of fermats last theorem has been
proven above..(140a)

## WELLSSUMMATIONCONJECTURE

$a^{x}+b^{y}=c^{z}$ $\qquad$
prove: if $a^{x}=c^{z}$ then $a^{x} \neq b^{y}$
if $b^{y}=c^{z}$ then $b^{y} \neq a^{x}$
examples
$a^{x}=1, c^{z}=1$, then $b^{y} \neq 1$
$b^{y}=1, c^{z}=1$, then $a^{x} \neq 1$
recall (96). .(141)
$d=k$. $\qquad$ 96)
recall (126).
$f=k$. (.126)
from (96) and (126).
$d=f$.
recall (36) and (38).
$d=a_{i}+a_{j}$
$f=b_{i}+b j$
substitute (36) and (38) in (144)..
$a_{i}+a_{j}=b_{i}+b_{j}$.
from (145).
$a_{i}=b_{i}$.
$a_{j}=b_{j}$ .(50)
so that (149) and (150) exists is not true. thisis because
the twodual sets cannot function at the same time. the system takes binary(2) input and does not take a 4-input. so the mathematical proof on this page is fantasy. it exists impossibly. $\qquad$

## take note

it takes the input $d=k$. $\qquad$
and returns theinput $2 d^{2}=k^{2}$.
so the two inputs are not thesame. thisis the proof.
recall (47). .(155)
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}=1$.
recall (144).
$d=f$.
substitute (144) in (47).
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{d^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}=1$.
factorize $d^{2}$ in (158). (59)
$d^{2}\left(\frac{\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}\right)=1$.
divide both sides of (160) by $d^{2}$. (161)
$\left(\frac{\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)}\right)=\frac{1}{d^{2}}$
find the LCM of the left side of (162).
$\frac{\left(a_{i}+a_{j}\right)^{g}+\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)} p=\frac{1}{d^{2}}$
since $g=p \ldots \ldots \ldots \ldots \ldots . . . . . .11)$
and $\mathrm{h}=\mathrm{p} \ldots \ldots \ldots \ldots \ldots \ldots$ (138)
so $g=h$.
substitute (165), (109), (110) in (164) and if (149) and (150) is true then 164 becomes. $\qquad$ .(166)
$\frac{\left(a_{i}+a_{j}\right)^{g}+\left(a_{i}+a_{j}\right)^{g}}{k^{2}{ }_{\left(a_{i}+a_{j}\right)^{g}}^{g}}=\frac{1}{d^{2}}$.
$\frac{2\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(a_{i}+a_{j}\right)^{g}}=\frac{1}{d^{2}}$
$\frac{2}{k^{2}}=\frac{1}{d^{2}}$.
$2 d^{2}=k^{2}$ ..... (170)
so $a_{i} \neq b_{i}$ ..... (171)
$a_{j} \neq b j$ ..... (172)
if ..... (1B)
$a_{i}=c_{i}$ ..... (173)
$a j=c j$ ..... (174)
the other possible dual sets in the $(0,1)$ domain are below. ..... (175)
2) $A=0.1, B=0.9$; $(0.1,0.9)$ ..... (176)
0.1 and 0.9 don't have prime factors(mu liple of 9 ) ..... (177)
3) $A=0.2, B=0.8 ;(0.2,0.8)$ ..... (178)
0.2 and 0.8 has a prime factor of 2 ..... (.179)
4) $A=0.3, B=0.7 ;(0.3,0.7)$. ..... (18)
0.3 and 0.7 don't have a prime factor. ..... (181)
5) $A=0.4, B=0.6 ;(0.4,0.6)$ ..... (182)
0.4 and 0.6 has a prime factor of 2 ..... (183)
6) $A=0.5, B=0.5 ;(0.5,0.5)$. ..... (184)
0.5 and 0.5 dont have a prime factor(equ al) ..... (185)
the above dual set components can be reversed to obtain a
total of 12 dual sets(186)
since only 2 common prime factor dual sets exist in the $(0,1)$
domain out of 6 . then the percentage of common prime factor in the $(0,1)$ domain is
$\frac{2}{6} \times 100 \%=33.33 \% \ldots \ldots \ldots \ldots \ldots \ldots . .(186 a)$
however this $33.33 \%$ willshrink theoretically in all domains to $2 \%$ due to reasons explained below. $(0.2,0.8)$ and $(0.4,0.6)$ can be called the standard common prime factor dual set of the $(0,1)$ domain which predicts the existence of other common prime factor dual sets. $(0.2,0.8)$ means you are solving a problem of numbers which has common prime factor of 2 as solution which exists in a state of $2 \%$ probability.so the $(0.2,0.8)$ dual set proves A. beals conjecture point of having common prime factor is valid only if this $2 \%$ exists. so if having a common prime factor of 2 then theoretical common sense says there is also to a very high extent of possibility( $100 \%$ ) the existence of other common prime factors - $(3,5,7,11)$ which also lie in the $2 \%$ domain. thismust be proven to be accepted as true. so the remaining $98 \%$ probability means you are solving a problem of numbers which does not have common prime factors as solutions. this disproves A.beal. Also, the number variables $\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$ are not close to each other on the real number line. (18b)
$0.8-0.2=0.6$ (wide not 0 or 0.1 ) $\ldots \ldots \ldots \ldots \ldots . .$. (187)Mathematical Theory and Modeling
explanation of the probability ( $2 \%, 98 \%$ ) ..... (88)
recall (52) and (1) ..... (189)
$\mathrm{A}+\mathrm{B}=1$..(lineequation) ..... (52)
$a^{x}+b^{y}=c^{z}$ ..... (1)
$0.2+0.8=1$ ..... (190)
multiplyboth sides of (190) by 10 ..... (191)
$2+8=10$ ..... (192)
$2(1+4)=10$ ..... (193)
(193) means you are solving a problem of numbers (a, b, c, x, y, z)
having common prime factors amoung themselves -2 .
2 represents a or $\mathrm{x}, 8$ represents b or $\mathrm{y}, 10$ represents c or z . thisis
responsible for the $2 \%$. since (52) is a linear equation
(192) means $\mathrm{A}=2$ and B is 8
$\qquad$(194)
(193) proves that A and B can have common prime factors
since integers. this favours A.beal.
recall (52)(195)
$\mathrm{A}+\mathrm{B}=1$ ..... (52)
recall (1) ..... (96)

$$
a^{x}+b^{y}=c^{z} \ldots \ldots \ldots \ldots \ldots(1)
$$(1) says $\mathrm{A}=a^{x}, B=b^{y}, 1=c^{z}$(197)

so (1) is saying (52) is not and not a linear equation but a curve.so a
normal line willonly intersect a curve at finite points (not many-2)(198)
substitute(194) in (197)

$\qquad$
$a^{x}=2, b^{y}=8,10=c^{z}$ (200)
from (200)
$\qquad$
$x=\log _{a} 2, y=\log _{b} 8 ; \quad z=\log _{c} 10$. $\qquad$ 202)
(202) proves that the powers $\mathrm{x}, \mathrm{y}, \mathrm{z}$ are logarithmic functions
which are not in most cases integers and this powers $(\mathrm{x}, \mathrm{y}, \mathrm{z})$
in most cases are different from another. since two different logarithm(2B)
from (200)

$\qquad$ ..... (204)
$\frac{1}{x}, b=8{ }^{\frac{1}{y}}, c=10 \frac{1}{z}$
(205) proves that a and b are surds and not integers.so they can onlyhave common prime factors as integers in a very narrow range or onlyhave surdic common factors or prime factors which lies in a $98 \%$
domain considering the curve nature.(2あ)
using the dual set $(0.2,0.8)$
recall (52) and (47).
$A+B=1$.
recall 47.
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}+\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)} p=1$.
substitute the dual set in (47).
$A=\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)} p=0.2 .$.
$B=\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}=0.8 \ldots$
solve (210).
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)} p=\frac{2}{10}$
cross multiplyin 213.
$10 d^{2}\left(a_{i}+a_{j}\right)^{g}=2 k^{2}\left(c_{i}+c j\right) p_{\ldots \ldots \ldots \ldots \ldots(2)}$
make 10 the subject of the formula in (215)
$10=\frac{2 k^{2}\left(c_{i}+c_{j}\right)}{}{ }_{d^{2}\left(a_{i}+a_{j}\right)^{g}}$.
recall (211).
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)}$ p $=0.8$.
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}=\frac{8}{10}$
cross multiplyin 219 . $\qquad$
$10 f^{2}\left(b_{i}+b_{j}\right)^{h}=8 k^{2}\left(c_{i}+c j\right){ }^{p}$
substitute (217) in (221).
$\frac{2 k^{2}\left(c_{i}+c_{j}\right)^{p}}{d^{2}\left(a_{i}+a_{j}\right)^{g}} f^{2}\left(b_{i}+b_{j}\right)^{h}=8 k^{2}\left(c_{i}+c_{j}\right)^{p}$.
divide both sides of (223) by $2 k^{2}\left(c_{i}+c j\right){ }_{j} \ldots$ (224)
$\frac{2 k^{2}\left(c_{i}+c_{j}\right)}{2 k^{2}\left(c_{i}+c_{j}\right)} p_{d}^{2}\left(a_{i}+a_{j}\right)^{g} f^{2}\left(b_{i}+b_{j}\right)^{h}=\frac{8 k^{2}\left(c_{i}+c_{j}\right)}{2 k^{2}\left(c_{i}+c_{j}\right)} p$.
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{d^{2}\left(a_{i}+a_{j}\right)^{g}}=4 .$.
$f^{2}\left(b_{i}+b_{j}\right)^{h}=4 d^{2}\left(a_{i}+a_{j}\right)^{g}$
in one dimensional space (226) becomes.
$f^{2} b_{i}{ }^{h}=4 d^{2}{ }_{i}{ }^{g}$. $\qquad$
make $f$ the subject of the formula in (228).
$f^{2}=\frac{4 d^{2}{ }_{a_{i}} g}{b_{i} h}$.
$f=\sqrt{\frac{4 d^{2} a_{i} g}{b_{i}^{h}}} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
$f=2 d \sqrt{\frac{a_{i}{ }^{g}}{b_{i}{ }^{h}}}$.
recall (36) and (38)
$d=a_{i}+a j$.
$f=b_{i}+b_{j}$. $\qquad$
in one dimension (36) and (38) becomes.
(234)
$d=a_{i}$
$f=b_{i}$ .236)
substitute (235) and (236) in (232).
$\left.b_{i}=2 a_{i} \sqrt{\frac{a_{i} g}{b_{i} h}} \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . .238\right)$
$b=2 a \sqrt{\frac{a_{i} g}{b_{i} h}} \ldots \ldots \ldots . \ldots \ldots . . . . . . . . . . . . .239$
$\left.b=2 a \sqrt{\frac{a^{g}}{b^{h}}} \ldots \ldots . . . . . . . . . . . . . . . . . . . . .40\right)$
(240) is similar to(193)..
recall (193).
$\qquad$
$10=2(1+4)$. $\qquad$ (242)
compare (240) with (193) $\qquad$
$\mathrm{b}=10, \ldots \ldots . . . .(244) ; a \sqrt{\frac{a^{g}}{b^{h}}}=5$.
the $(0.4,0.6)$ dual set is not treated but theoretically, it should give thesame result as the $(0.2,0.8)$ dual set.
the reason is below. $\qquad$ .(246)
recall (52)
$A+B=1$
$0.4+0.6=1$ (248)
multiplyboth sides of (248) by 10 .
$4+6=10$ $\qquad$ (250)
$2(2+3)=10$. $\qquad$
$\mathrm{b}=10, \ldots \ldots \ldots \ldots . .\left(252 ; \quad a \sqrt{\frac{a^{g}}{b^{h}}}=5\right.$
(193) can be used to determine the flow between the numbers (a, b, g, h).
however, this prove is elementary, examples below..
A.beals request for " b " and " a " common prime factor relationship.......255)
the generalization is derived from (239) ...............(256)
recall (239)..................(257)
$\mathrm{b}=2 \mathrm{a} \sqrt{\frac{a_{i} g}{b_{i} h}} \ldots \ldots$. (ommon prime factor 1 ). $\qquad$
$b=v a \sqrt{\frac{a_{i}^{g}}{b_{i} h}}$
$b=v a \sqrt{\frac{a g}{b^{h}}}$
where $v$ is the common prime factor number or any real number.
(259) is an accurate flow equation. it is also the equation of general relationship between a and b.it shows and confirms the above statement that $a$ and $b$ have surdic relationship ( $98 \%$ )and that the numbers can have $2 \%$ common prime factor relationship.
It was obtained from the computing dual set $(0.2,0.8)$. it also exists in all dual set. however ( $\mathrm{a}, \mathrm{g} \mathrm{b}, \mathrm{h}$ ) can be an integer or a non integer - decimal, surd, fraction, logarithm function, positive or negative number but
most importantly $\frac{a^{g}}{b^{h}} \neq-$ number
A. beals conjecture is only correct if $\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$ are all integers or say ( $\mathrm{a}, \mathrm{g}, \mathrm{b}, \mathrm{h}$ ) are all integers. Also A.beals conjecture may fail by saying that his conjecture only holds when there is a common prime factor relationship between the number variables $a, b, c$. This may not be the only condition for his conjecture to hold. it could be one of the conditions under which his - A.beals conjecture holds. however, all said is subject to verification.
so common prime factor relationship exists between $b$ and $a$ when
$\sqrt{\frac{a^{g}}{b^{h}}}=1 .$. $\qquad$ .259a)
so the below follows $\qquad$ (260)
example 1 . (260a)
$b=2 a \sqrt{\frac{a g}{b^{h}}}$.
$\mathrm{b}=10, \ldots \ldots \ldots \ldots\left(252 ; \quad a \sqrt{\frac{a^{g}}{b^{h}}}=5\right.$.
so if $\mathrm{b}=2 \mathrm{a} \ldots \ldots \ldots \ldots$. (261\$) when $\left.\sqrt{\frac{a^{g}}{b^{h}}}=1 \ldots \ldots \ldots .259 a\right)$, then substitute
(259a) in (253). $\qquad$
$\sqrt{\frac{a^{g}}{b}}=5$
a. $1=5$.
$\mathrm{a}=5$
so $\mathrm{b}=10, \mathrm{a}=5$, so " b " factors " a " by a common prime
factor of 5 . .....(26ld)
so what occurs in $\sqrt{\frac{a g}{b h}}=1$. $\qquad$
recall (259a). $\qquad$ .(261d1)
$\sqrt{\frac{a^{g}}{b^{h}}}=1$ $\qquad$
$b=10, \mathrm{a}=5$. $\qquad$ ..(261ه)
substitute (261e) in (259a). $\qquad$
$\sqrt{\frac{5^{g}}{10^{h}}}=1$. (261e)
square both sides of (261f). $\qquad$ (261g)
$\left(\sqrt{\frac{5^{g}}{10} h}\right)^{2}=1^{2}$ .261h)

$$
\begin{align*}
& \left.\frac{5^{g}}{10^{h}}=1 \ldots \ldots \ldots . . . . . . . .261 i\right) \\
& 5^{g}=10^{h} \ldots \ldots \ldots . . . . . . .(261 j) \\
& 10^{h}=5^{g} \tag{261k}
\end{align*}
$$

$g \log 105$ will not return an integer most time.so $h$ is most timenot aninteger. so use thecomputer to find the number
type(integer, non integer etc) relationship between $h$ and $g$ to
determine the number type of x and y . the only
equation the computer needs to solve is $\sqrt{\frac{5^{g}}{10^{h}}}=1$. ..... 261f)
$(\mathrm{g}, \mathrm{h})=(-,-)$
$(261 \mathrm{~m})$ is the equation that shows the relationship between h and g for
(261f) tobe equal to1 ..... (261n)
Also as previously discussed, ( 261 m ) proves that the
powers of the number variables ( $\mathrm{a}, \mathrm{b}, \mathrm{c}$ ) are logarithm
functions see(202).(262)

## example 2

(common prime factor 3 )
recall (52)
$A+B=1$
recall (193)
$2(1+4)=10$. $\qquad$
divide both sides of (193) by $2 \ldots \ldots . . . .$. .(265)
$(1+4)=5$. .(266)
multiplyboth sides of (266) by 3 .
$3(1+4)=3 \times 5=15 \ldots \ldots \ldots \ldots \ldots .(268)$
$3(1+4)=15$. .269)
$b=15 \ldots$ (270), $v=3 \ldots .(271), a \sqrt{\frac{a g}{b h}}=5 \ldots$. (253), $a=5$.
" $b$ " stillsfactors " a " by a common prime factor of $5 \ldots . .$. (27a)
example (3). .(23)
(common prime factor 5)
$\left.b=5 a \sqrt{\frac{a}{b}{ }_{b}^{h}} \ldots \ldots \ldots \ldots \ldots .274\right)$
recall (52)
$A+B=1 \ldots \ldots \ldots \ldots$......62)
Mathematical Theory and ModelingISSN 2224-5804 (Paper) ISSN 2225-0522 (Online)
recall (193).

$\qquad$ ..... 276)
$2(1+4)=10$ ..... (193)
divide both sides by of (193) by 2 ..... (277)
$(1+4)=5$. ..... (278)
multiplyboth sides of (278) by 5 ..... (279)
$5(1+4)=5 \times 5=25$ ..... (280)
$5(1+4)=25$ ..... 281)
$b=25, \ldots \ldots$ (282) $v=5 \ldots$. .283); $a \sqrt{\frac{a^{g}}{b^{h}}}=5 \ldots$ (253), $\mathrm{a}=5$.
" b " stillsfactors "a" by a common prime factor of 5 ..... (284a)
example (4)(285)
(common prime factor 7 )
$b=7 a \sqrt{\frac{a^{g}}{b^{h}}}$. ..... (286)
recall (52) ..... (87)
$A+B=1$ ..... 62)
recall (193) ..... 288)
$2(1+4)=10$. ..... (193)
divide both sides of (193) by 2 . ..... (28)
$(1+4)=5$. $\qquad$
multiplyboth sides of (290) by 7 .
$7(1+4)=5 \times 7=35 \ldots \ldots \ldots \ldots \ldots .292)$
$7(1+4)=35$. .293)
$b=35, \ldots .294) ; v=7 \ldots .(295) ; \quad a \sqrt{\frac{a g}{b^{h}}}=5, \mathrm{a}=$
" b " stillsfactors " a " by a common prime factor of $5 \ldots . .$. (296a)
the four examples are computed without care or need for the dual sets they originate from. the above also shows that "a" is always 5 for any common prime factor relationship between b and a in (1). "a" does not change for this common prime factor relationship.it agains shows that " b " always factors " a " by 5 for all their common prime factor
relationship tillinfinity. the above again shows that $a \sqrt{\frac{a^{g}}{b^{h}}}$ is always 5
in all the possible dual sets whether prime factor or no prime
factor. it is a constant - does not change. (296b)
so one write the below $\qquad$ (297)
$\mathrm{b}=v \mathrm{k}$ (air friction equation - flight).
this also supports the existence of a linear solution
(common prime factor)
$\mathrm{A}+\mathrm{B}=1 \ldots \ldots \ldots .52$ ) which has $2 \%$ occurence for all the
possible dual sets. where k is a constant...........499)

$$
\begin{equation*}
\mathrm{k}=a \sqrt{\frac{a}{b} h} \tag{300}
\end{equation*}
$$

others examples are : $\qquad$
$b=11 a \sqrt{\frac{a}{b} h} \ldots \ldots \ldots \ldots \ldots$. (ommon prime factor 11). $\qquad$
$b=13 a \sqrt{\frac{a^{g}}{b^{h}}} \ldots \ldots \ldots \ldots \ldots($ (ommon prime factor 13$)$. $\qquad$ ..302a)
$b=19 a \sqrt{\frac{a^{g} g}{b}} \ldots \ldots \ldots \ldots \ldots$..................
note all the prime factor equation examples are naturally independent. trying to solve them together will give two different inputs which are meant to be thesame. the computer gives an error as explained above. but because of the constant (k) these equations become dependent. however, studying the equations carefully again. they all are stillindependent. so they all give independent graphs. so graphical plot can not be used tofind any of the number variables ( $\mathrm{a}, \mathrm{b}, \mathrm{g}, \mathrm{h}$ ). this proves a fact that dual sets in a binary computer are not connected. each dual set acts discretely and unaffected by another dual set. $\qquad$ (304)
so if two dual sets are connected. then 3-4-input error operation will occur . the only thing that can be done is to solve each equation independently .(305)
for example
$b=25, \ldots \ldots \ldots \ldots . \beta 06) ; \quad a \sqrt{\frac{a^{g}}{b^{h}}}=5$.
substitute $=25$ in (307).
$a \sqrt{\frac{a^{g}}{25^{h}}}=5$
so find ( $\mathrm{a}, \mathrm{g}, \mathrm{h}$ ) - angels house. thismeans three more dependent
equations are needed to find ( $\mathrm{a}, \mathrm{g}, \mathrm{h}$ ).
$\underline{\text { independent graphs }}$ $\qquad$ .B10)
$\mathrm{b}=v \mathrm{k}$. .(311)
data graph : $\mathrm{b}=2 \mathrm{k}, \mathrm{b}=3 \mathrm{k}, \mathrm{b}=5 \mathrm{k}, \mathrm{b}=9 \mathrm{k}, \mathrm{b}=11 \mathrm{k}$
$b$ changes, so it is plotted on the $y$-axis. $v$ changes, so it plotted on the x -axis. $\qquad$ (3B).
graph $X 1$ - see end pages
studying the above equations again. through the constant k. it is possible to have a dependent graph - one graph. since b changes and v changes. so we obtain just one graph which can be studied for ( $\mathrm{a}, \mathrm{b}, \mathrm{g}, \mathrm{h}$ ). this proves the existence of computers which can take more than two (binary) input at a time. That is exactly four input at a timeor in a set. so if these computer exists then higher than 4-input level computers also exists. .14).
dependent graph. .15)
$b$ changes, so it is plotted on the $y$-axis. $v$ changes, so it plotted on the
x - axis using $\mathrm{y}=\mathrm{mx}+\mathrm{c}$. $\qquad$ (316)
$X 2$ - see end pages
take note no equations are missing. the equations numbers are just
like that.(318-326)

$$
\begin{equation*}
\text { find } \mathrm{c} . \tag{327}
\end{equation*}
$$

recall (213).

$$
\begin{equation*}
\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}{ }_{\left(c_{i}+c_{j}\right)} p}=\frac{2}{10} \ldots \tag{328}
\end{equation*}
$$

> cross multiplyin (213).
$\qquad$

$$
\begin{align*}
& 10 d^{2}\left(a_{i}+a_{j}\right)^{g}=2 . k^{2}\left(c_{i}+c_{j}\right)^{p} \ldots \ldots \ldots . .(330) \\
& \left.2 k^{2}\left(c_{i}+c_{j}\right)^{p}=10 d^{2}\left(a_{i}+a_{j}\right)^{g} \ldots \ldots \ldots . .331\right)
\end{align*}
$$

$$
\begin{equation*}
\text { divide both sides of (331) by } 2 . \tag{332}
\end{equation*}
$$

$$
\begin{align*}
& \frac{2 k^{2}\left(c_{i}+c_{j}\right)^{p}}{2}=\frac{10 d^{2}\left(a_{i}+a_{j}\right)^{g}}{2} . .  \tag{B33}\\
& k^{2}{\left(c_{i}+c_{j}\right)^{p}}^{p}=5 d^{2}\left(a_{i}+a_{j}\right)^{g} \ldots \ldots \tag{334}
\end{align*}
$$

divide both sides of (334) by $\left(c_{i}+c j\right)^{p}$.

$$
\begin{align*}
& \frac{k^{2}\left(c_{i}+c_{j}\right)^{p}}{\left(c_{i}+c_{j}\right)^{p}}=\frac{5 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}} \ldots  \tag{336}\\
& {5 d^{2}}^{2}\left(a_{i}+a \dot{)} g\right. \tag{335}
\end{align*}
$$

路
$\qquad$

$$
\begin{equation*}
k^{2}=\frac{5 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c j\right)} \tag{337}
\end{equation*}
$$

find the square root of both side of (337). $\qquad$ (338)
$k=\sqrt{\frac{5 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c j\right)^{p}}}$
recall (40) $\qquad$
$k=c_{i}+c j$ (40)
substitute (40) in (339).
$c_{i}+c j=\sqrt{\frac{5 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}}} \ldots \ldots \ldots \ldots \ldots$
in one dimension (342) becomes
$c_{i}=\sqrt{\frac{5 d^{2}\left(a_{i}\right)^{g}}{\left(_{c_{i}}\right)^{p}}} \ldots \ldots \ldots \ldots \ldots$. 344 )
$c_{i}=d \sqrt{\frac{5\left(a_{i}\right)^{g}}{\left(c_{i}\right)^{p}}} \ldots \ldots \ldots \ldots \ldots$.(345)
recall (36).
$d=a_{i}+a_{j}$ .(36)
in one dimension (36) becomes.
$d=a_{i} \ldots \ldots \ldots \ldots$......348)
substitute (348) in (345)
$c_{i}=a_{i} \sqrt{\frac{5\left(a_{i}\right)^{g}}{{\left(c_{i}\right)}^{p}}}$
$c=a \sqrt{\frac{5(a)^{g}}{{ }_{(c)} p}}$.
(351) shows that " c " does not form common prime factor with " a " easily - REAL surdic. it also shows that $\mathrm{c}=\mathrm{a}$
when $\left.\sqrt{\frac{5(a)^{g}}{{ }_{(c)} p}}=1 \ldots \ldots . .352\right)$
recall (351)..
$c=a \sqrt{\frac{5(a)^{g}}{{ }_{(c)} p}}$.
square both sides of (351). (353a)

$$
c^{2}=\left(\sqrt{\frac{5(a)^{g}}{(c)^{p}}}\right)^{2} \ldots \ldots \ldots \ldots \ldots .(353 b)
$$

$$
c^{2}=a^{2} \cdot \frac{5(a)^{g}}{(c) p} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \text {............... }
$$

cross multiplyin (353c). $\qquad$ .(353d)
$c^{2} \times(c) p=a^{2} .5(a) g$ .B53e)
apply law of algebra. (353f)
$c^{2+p}=5 a^{2+g}$ $.353 \mathrm{~g})$
note any value cannot just be substituted for $p$ or $g$. $p$ and $g$ are simultaneous values.it shows binary computation. $\qquad$ (353)
from above $\mathrm{a}=5$ ..... (272)
substitute (272) in

$\qquad$
(353g)
$c^{2+p}=5.5(2+g)$ . 353 i )
" a " was substituted because $A+B=1 \ldots \ldots .$. (52) takes simultaneous values - binary computation a computer program is needed tosolve for p and g in (353i)
(353i) shows that a computer program can be used to study (1) to verify the validityof fermats last theorem and all that A.beals proposed in his conjecture. since we know a, b, c, x, y, z..........(353j)
(351) can be manipulated as done for $b$ and a relationship above. however we can write the condition for $\mathrm{c}=3 \mathrm{a}, 5 \mathrm{a}$ etc. (353k)
example - $\mathrm{c}=3 \mathrm{a}$
$\left.a \sqrt{\frac{5(a)^{g}}{{ }_{(c)} p}}=3 a \ldots \ldots \ldots \ldots .353 l\right)$
divide both sides of (353m) by a. .B53n)
$\sqrt{\frac{5(a)^{g}}{(c)} p}=3$..
square both sides of (353o). .(353p)

$$
\begin{align*}
& \left(\sqrt{\frac{5(a)^{g}}{(c)} p}\right)^{2}=3^{2} \ldots \ldots \ldots \ldots \ldots  \tag{353q}\\
& \frac{5(a)^{g}}{(c)} p
\end{align*}
$$

${ }_{5(a)}{ }^{g}=9(c) \quad p$. (353s)
find a .354)
recall (213).
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}{ }_{\left(c_{i}+c j\right)} p}=\frac{2}{10}$.
cross multiplyin (213)
$10 d^{2}\left(a_{i}+a_{j}\right)^{g}=2 . k^{2}\left(c_{i}+c j\right){ }^{p}$
divide both sides of (357) by $\left(10\left(a_{i}+a_{j}\right)^{g}\right)$.. $\qquad$ .(358)

$$
\frac{10 d^{2}\left(a_{i}+a_{j}\right)^{g}}{10\left(a_{i}+a_{j}\right)^{g}}=\frac{2 \cdot k^{2}\left(c_{i}+c_{j}\right)^{p}}{10\left(a_{i}+a_{j}\right)^{g}}
$$

$d^{2}=\frac{k^{2}\left(c_{i}+c_{j}\right)^{p}}{5\left(a_{i}+a_{j}\right)^{g}}$.
find the square root of both sides of (360).
$d=\sqrt{\frac{k^{2}\left(c_{i}+c_{j}\right)^{p}}{5\left(a_{i}+a_{j}\right)^{g}}}$.
$d=k \sqrt{\frac{\left(c_{i}+c_{j}\right)^{p}}{5\left(a_{i}+a_{j}\right)^{g}}}$
recall (36) and (40) $\qquad$
$d=a_{i}+a_{j}$
$k=c i+c j$
substitute (36) and (40) in (363). $\qquad$
$a_{i}+a_{j}=c_{i}+c j \sqrt{\frac{\left(c_{i}+c_{j}\right)^{p}}{5\left(a_{i}+a_{j}\right)^{g}}}$.
in one dimension (366) becomes. $\qquad$
$a_{i}=c_{i} \sqrt{\frac{\left(c_{i}\right)^{p}}{5\left(a_{i}\right)^{g}}}$.
$a=c \sqrt{\frac{(c) p}{5(a)} g}$.
(370) shows that "a" does not form common prime factor with "c" easily

REAL surdic. it also shows that $\mathrm{a}=\mathrm{c}$ when the below holds.
$\sqrt{\frac{(c)^{p}}{5(a)^{g}}}=1$ $\qquad$
however we can write the condition for $\mathrm{a}=3 \mathrm{c}, 5 \mathrm{c}, 7 \mathrm{c}$ etc. .
$\mathrm{a}=\mathrm{c}$ in two conditions
recall (372) and (352).
$\sqrt{\frac{5(a)^{g}}{{ }_{(c)} p}}=1=\sqrt{\frac{(c)^{p}}{5(a)^{g}}}=1$.
$\left.\sqrt{\frac{5(a) g}{{ }_{(c)} p}}=\sqrt{\frac{(c) p}{5(a)} g} \ldots \ldots \ldots \ldots . .375 a\right)$
square both sides of (375a).
$\frac{5(a)^{g}}{(c)} p=\frac{{ }_{(c)} p}{5(a)} g$
cross multiplyin (376). $\qquad$ (37a)
$\operatorname{25(a)}^{g}{ }_{(a)} g={ }_{(c)} p_{(c)} p$
$25 a^{2 g}=c^{2 p}$ .(378)
find the square root of both sides of (378).
$\sqrt{25 a^{2 g}}=\sqrt{c^{2 p}}$
5. $a^{g}={ }_{c} p$
(381) similar number variable relationship can be derived for the other variable eg $b$ and $a$ - following the same step.so any pair of distinct base number variable have two relationships for their equality. $\qquad$ (382)

## condition for the failure of fermat last theorem

having said above that changing the dual set can lead to
the failure of fermats last theorem. however, this cannot be proven now but a simple way toshow this without need for any dual set of failure is below. $\qquad$ (383)
general condition for the failure of fermat last theorem ....(384)
$a=c \sqrt{\frac{(c) p}{5(a)} g}$ is a positive integer...
$b=v a \sqrt{\frac{a g}{b^{h}}}$ is a positive integer. $\qquad$
$c=a \sqrt{\frac{5(a)}{(c)} p}$ is a positive integer. $\qquad$
$\mathrm{g}>0$.
$h>0$.
$\mathrm{p}>0$.
$\mathrm{g}=\mathrm{h}=\mathrm{p} ;(\mathrm{g}, \mathrm{h}, \mathrm{p}=$ positiveinteger $)$ $\qquad$
recall (259a)
$\sqrt{\frac{a^{g}}{b}}=1$
square both sides of (259a) $\qquad$
$\left[\sqrt{\frac{a^{g}}{b}}\right]^{2}=1^{2}$
$\frac{a^{g}}{b^{h}}=1$.
$a^{g}=b^{h}$
recall $(353 \mathrm{~g})$.
$\mathrm{c}^{2+\mathrm{p}}=5 a^{2+g}$
rewrite $(353 \mathrm{~g})$.
$5 a^{2+g}=\mathrm{c}^{2+\mathrm{p}}$
recall (31).
$\left(a_{i}+a_{j}\right)^{2+g}+\left(b_{i}+b_{j}\right)^{2+h}=\left(c_{i}+c_{j}\right)^{2+p}$
In one-dimension (31) becomes $\qquad$
$a_{i}^{2+g}+b_{i}^{2+h}=c_{i}^{2+p}$
$a^{2+g}+b^{2+h}=c^{2+p}$
substitute (8) in (12).
$a^{2+g}+b^{2+h}=5 a^{2+g}$
take $a^{2+g}$ to the right side of (14).
$b^{2+h}=5 a^{2+g}-a^{2+g}$
$b^{2+h}=5 a^{2+g}-a^{2+g}$ .17)
$b^{2+h}=4 a^{2+g}$
recall (261\$)
$\mathrm{b}=2 \mathrm{a}$. (26\$)
$\mathrm{b}=2 \mathrm{a}$ is the common prime factor relationship that exists between
b and a .
recall (18).
$b^{2+h}=4 a^{2+g}$
substitute (261\$) in (18)
$(2 a)^{2+h}=4 a^{2+g}$
apply the law of algebra below to (18)
$\left.a^{2+g}=a^{2} \times a^{g} \ldots \ldots \ldots \ldots \ldots .22 a\right)$
$(2 a)^{2+h}=4 a^{2} \times a g$
recall (5)....................(24)
${ }_{a} g=b^{h}$
subtitute (5) in (23)
$(2 a)^{2+h}=4 a^{2} \times b^{h}$.
subtitute (261\$) in (26).
$(2 a)^{2+h}=4 a^{2} \times(2 a)^{h}$
$(2 a)^{2+h}=2^{2} a^{2} \times(2 a)^{h}$
recall (29) $\qquad$ 30)
$(2 a)^{2+h}=2^{2} a^{2} \times(2 a)^{h}$. $\qquad$
apply thelaw of algebra to (29).
$(2 a)^{2+h}=(2 a)^{2} \times(2 a)^{h}$.
apply thelaw of algebra to (32).
$(2 a)^{2+h}=(2 a)^{2+h}$.
$(2 a)^{2+h}-(2 a)^{2+h}=0$
(35) means $\mathrm{b}=2 \mathrm{a}$ is a solution to the A . beals conjecture. so since the the left side of (34) is equal to the right side this means the below
$\mathrm{a}^{\mathrm{X}}+b^{y}=(2 a)^{2+h}$
$c^{z}=(2 a)^{2+h}$
so $\mathrm{a}^{\mathrm{X}}+b^{y}=c^{z}$ if $\mathrm{b}=2 \mathrm{a}$, if b has a common prime factor relationship with $a$. check for the others $b=3 a$ etc
this proves that A.beals conjecture is 50\% valid.
q : are $\mathrm{x}, \mathrm{y}, \mathrm{z}$ integers. even if A.beals conjecture is $50 \%$ valid. thisis a
very important question $\qquad$ (36)
recall (5) (37)
${ }_{\mathrm{a}} \mathrm{g}=b^{h}$ . 5 )
substitute (261\$) in (5).
${ }_{\mathrm{a}} \mathrm{g}=(2 a)^{h}$
$g=\log _{a}(2 a)^{h}$
$g=\log _{a} 2^{h} h$
using the law of logarithm below on (41).
$\log _{\mathrm{V}} \mathrm{ab}=\log _{\mathrm{V}} \mathrm{a}+\log _{\mathrm{V}} \mathrm{b}$.
$g=\log _{a} 2^{h}+\log _{a} a^{h}$ $\qquad$
using the law of logarithm below on (44).
$\log _{\mathrm{V}} \mathrm{a}=b \log _{\mathrm{V}} \mathrm{a}$.
$g=h \log _{a} 2+h \log _{a} a$.
using the law of logarithm below on (47).
$\log _{\mathrm{V}} \mathrm{v}=1$
$g=h \log _{a} 2+h \times 1$
$g=h \log _{a} 2+h$.
factorize h in (51).
$g=h\left(\log _{a} 2+1\right)$.
as said above for any common prime factor reationship between b and a . the value of a is always 5 . it does not change - it is constant 5 .
substitutea $=5$ in (53).
$g=h(\log 52+1)$.
the only problem here with A.beals is the $\log 52 . \log 52$ is not an integer it has a value of 0.4307 . so if $h$ takes integer value, $g$ will tend to to take integer value which will make $x$ takeinteger value in turn. but g cannot be an integer for any integer h because of $\log 52$.
so $\log 52$ is the last burden that broke the back of the camel. it is not an integer. so A.beals fails here by $40 \%$. so $b=2$ a but $x$ is not an integer so we don't need to check for p which determines the integer value of $z$. in order to justify A.beals we need to probe the other common prime factor relationship - a and $\mathrm{b}, \mathrm{c}$ and a , a and c , c and $\mathrm{b}, \mathrm{b}$ and c . $\qquad$ (56).
prove that $\mathrm{a}=2 \mathrm{~b}$ is a solution to (1)
recall (261).
$b=2 a \sqrt{\frac{a^{g}}{b^{h}}}$.
square both sides of (261).
$b^{2}=\left(2 a \sqrt{\frac{a}{b^{h}}}\right)^{2}$
$b^{2}=(2 a)^{2}\left(\sqrt{\frac{a^{g}}{b^{h}}}\right)^{2} \ldots \ldots \ldots \ldots \ldots$
$b^{2}=4 a^{2} \frac{a^{g}}{b^{h}}$.
cross multiplyin (61).
$b^{2} \times b^{h}=4 a^{2} \times a^{g}$
divide both sides of (63) by $4 a^{g}$
$b^{2} \frac{b^{h}}{{ }_{4 a}^{g}}=a^{2}$.
rewrite (65) (.66)
$a^{2}=b^{2} \frac{b^{h}}{4 a g}$
find the square root of both sides of (67)
$\left(a^{2}\right)^{\frac{1}{2}}=\left(b^{2} \frac{b^{h}}{4 a g}\right)^{\frac{1}{2}}$.
$a=\frac{b}{2}\left(\frac{b^{h}}{a g}\right)^{\frac{1}{2}}$.
$a=\frac{b}{2} \sqrt{\left(\frac{b^{h}}{a^{g}}\right)}$.
for $\mathrm{a}=2 \mathrm{~b}$ then the below holds. $\qquad$ (.72)
$\sqrt{\left(\frac{b^{h}}{a}\right)}=4 \ldots \ldots \ldots \ldots \ldots .73$

$$
\left(\sqrt{\left(\frac{b^{h}}{a^{g}}\right)}\right)^{2}=4^{2}
$$$\left(\frac{b^{h}}{a^{g}}\right)=16$

$\qquad$

$$
\begin{equation*}
b^{h}=16 a^{g} . \tag{.76}
\end{equation*}
$$

recall (14). ..... (77)
$a^{2+g}+b^{2+h}=5 a^{2+g}$ ..... (14)
take $a^{2+g}$ to the right side of (14). ..... (78)
$b^{2+h}=5 a^{2+g}-a^{2+g}$
$b^{2+h}=4 a^{2+g}$ ..... 80)
substitute $\mathrm{a}=2 \mathrm{~b}$ in (80)$b^{2+h}=4(2 b)^{2+g}$(82)
apply thelaw of algebra in (82).
$b^{2} \times b^{h}=4(2 b)_{(2 b)}{ }_{(2)}$
substitute (76) in (84).
$b^{2} \times 16 a g=4(2 b)^{2}{ }_{(2 b)} g$
substitute $(\mathrm{a}=2 \mathrm{~b})$ in (86).
$b^{2} \times 16(2 b){ }^{g}=4(2 b)^{2}(2 b) g$
divide both sides of (84) by (2b) $g$
$\frac{b^{2} \times 16(2 b)^{g}}{{ }_{(2 b)}^{g}}=\frac{4(2 b)^{2}{ }_{(2 b)^{g}}}{(2 b)^{g}}$
$b^{2} \times 16=4(2 b)^{2}$.
apply thelaw of algebra in (91).......................(92)
$b^{2} \times 16=4 \times 2^{2} \times b^{2}$
$b^{2} \times 16=4 \times 4 \times b^{2}$
$b^{2} \times 16=16 \times b^{2}$.
$b^{2} \times 16=b^{2} \times 16$.
(96) proves that $\mathrm{a}=2 \mathrm{~b}$ is a common prime factor solution to (1)
q : are $\mathrm{x}, \mathrm{y}$ and z integers.
recall (76)
$b^{h}=16 a^{g}$
substitute $(a=2 b)$ in (76).
$b^{h}=16(2 b){ }^{g}$ 99)
$h=\log b^{16(2 b)}{ }^{g}$
apply thelaws of logarithm in (100).
$h=\log b 16+\log b(2 b)^{g}$
$h=\log b 16+g \log _{b}(2 b)$
$h=\log _{b} 16+g\left(\log _{b} 2+\log _{b} b\right)$.
$h=\log b 16+g\left(\log b^{2}+1\right)$.
normally $b$ has no constant value from the theory but from (105)
since we need an integer answer then we say let $\mathrm{b}=2$.
substitute $\mathrm{b}=2$ in (105)

$\qquad$ ..... (07)
$h=\log _{2} 16+g\left(\log _{2} 2+1\right)$ ..... (108)
$h=\log 22^{4}+g(\log 22+1)$. ..... (109)
apply the laws of logarithm in (109). ..... (110)
$h=4 \log _{2} 2+g(1+1)$. ..... (111)
$h=(4 \times 1)+g(1+1)$. ..... (112)
$h=4+2 g$(113)
this approach was used to show how the logarithm vanished
the simpler approach is below.(114)
$b^{h}=16 a^{g}$ ..... (115)
substitute $(a=2 b)$ and $(b=2)$ in (115)
$2^{h}=16(2 \times 2){ }^{g}$$2^{h}=2^{4}\left(2^{2}\right) g$(116)
$2^{h}=2^{4} \times 2^{2 g}$ ..... (117)
apply the law of algebra ..... (118)$2^{h}=2^{4+2 g}$.
$h=4+2 g$ ..... (20)
so if g is an integer then h will be an integer. so both x and y are integers. so we need to check if z and c willalso be an integer.
recall (353g). .(122)
$\mathrm{c}^{2+\mathrm{p}}=5 a^{2+g}$ $\qquad$
applying the law of logarithm.
$2+\mathrm{p}=\log _{\mathrm{c}} 5 a^{2+g}$
applying the laws of logarithm to (124).
$2+\mathrm{p}=\log _{\mathrm{c}} 5+\log _{\mathrm{c}} a^{2+g}$
$2+\mathrm{p}=\log _{\mathrm{c}} 5+(2+g) \log _{\mathrm{c}} a$.
since $b=2$, then $a=4$ since $a=2 b$.
substitute $(a=4)$ in (127).
$2+\mathrm{p}=\log _{\mathrm{c}} 5+(2+g) \log _{\mathrm{c}} 4$.
(126) shows that if $c$ takes a certain integer value. $p$ will not still be an integer.this willin turn make z a non integer. p is not an integer because of the two different $\log _{\text {functions. }}-\log _{c} 5, \log _{c} 4$ so A.beals conjecure is valid here ( $95 \%-\mathrm{a}=2 \mathrm{~b}, \mathrm{x}$ and y are integers) but invalid ( $5 \%-\mathrm{z}$ is not an integer). so A.beals conjecture is totally invalid here ( $100 \%$. - since z is not an integer).
andy beals however still has $95 \%$ human sympathy integer validity (HSIV) for his conjecture. since he is the first to propose the closest solution to a most difficult problem in number theory.
(126) is also another important equation in thestudy of either fermats last theorem or the A.beals conjecture.it is called the validity of the fermats last theorem in the $(0.2,0.8)$ dual set. it proves that fermat last theorem remains validin thisdual set as earlier explained. in addition, (126) is explaining the invalidity of the goldbach conjecture written below. an even domain must not coexist with an odd domain in a real life view of the number theory. the odd is the 5 and the even is the 4 in the logarithm function. Either can exist independently but both must not exist at the same time.if 5 and 4 coexist then it means the numbers used for that particular computation are not from the real number line. so since not from the real number line then computation with these numbers give

Imaginative models, not real life models and imaginative models are not useful. furthermore -5 shows the most important property of the real number line (distinction) while $4=(2+2)$ nullifies this property of distinction. so disagreement and confusion starts. so (126) is called confusion equation of the $(0.2,0.8)$ dual set.

## Application to geophysics

In volume of a crude reserve estimation. a geophysicist submitted the below numbers as volume values for three oil wells.

54,40506
45,00002
45,7864748
4 and 5 must not exist together so the three values above are not correct. the above numbers are called fantasy numbers generated from
fantasy well models-computer program model.
correct values of oil well volumes are below
51,735931
73,519737
71,379533
note $2,46,8$ are not included. what this means in baby knowlegde is that no part of the earth is even or uniform down to the subsurface . also it is impossiblefor the most technologically advanced machine either in thought or reality to carve out a small uniform rock sample from an existing rock. it definitely willstill have some rough - odd sides (uneven sides).

## Added note

prove if $b=3 \mathrm{a}$ is a solution to (1)
recall (18)
$b^{2+h}=4 a^{2+g}$ $\qquad$
substitute $(b=3 a)$ in (18)
$(3 a)^{2+h}=4 a^{2+g}$
apply thelaw the law of algebra
$(3 a)^{2+h}=4 a^{2} \times a g$ $\qquad$
${ }_{a} g=b^{h}$
subtitute (4) in (3)
$(3 a)^{2+h}=4 a^{2} \times b^{h}$
subtitute $(\mathrm{b}=3 \mathrm{a})$ in (6)
$(3 a)^{2+h}=4 a^{2} \times(3 a)^{h}$
$(3 a)^{2+h}=2^{2} a^{2} \times(3 a)^{h}$
$3^{2+h} a^{2+h}=2^{2} a^{2} \times 3^{h} \times a^{h}$
apply the law of algebra.
$3^{2} \times 3^{h} h_{a} h_{a}^{2}=3 h_{a} h_{a}^{2} 2^{2}$.
$3^{2}=2^{2}$
$9=4$. (14)
(1) shows that $b=3 \mathrm{a}$ is not a solution to ( 1 ) since $9 \neq 4$. similarly,
$\mathrm{b}=4 \mathrm{a}, 5 \mathrm{a}, 6 \mathrm{a}, 7 \mathrm{a} \ldots \ldots . \infty \mathrm{a}$ are all not solutions to (1). so only
$\mathrm{b}=2 \mathrm{a}$ is a solution to (1). thisis explained below about the optimum angle of flight. .(15)

## VALIDITY PROVE OF THE A.BEALS CONJECTURE(2)

The only set that can validate or invalidate the A.beals conjecture as a matter of final conclusion is a set similar to the $(0.5,0.5)$
dual set. it is called the 4 - input synchronous tetra set
( $0.5,0.5,05,0.5$ ).this is because it takes equal and identical inputs
that do not show timedifference of process between the
right hand side and the left hand side of (1)
recall (52) and (1). ..(189)
$\mathrm{A}+\mathrm{B}=1$..(lineequation). (52)
$a^{x}+b^{y}=c^{z}$
$0.5+0.5=1 \ldots \ldots \ldots \ldots \ldots \ldots .$. ..........
$0.5+0.5=0.5+0.5 \ldots \ldots . .$. .(3)
multiplyboth sides of (2) by 10 .
$5+5=10$. . .5$)$
from (2)
$\mathrm{A}=\frac{5}{10}$ and $\mathrm{B}=\frac{5}{10}$
using the dual set $(0.2,0.8)$
recall (52) and (47).
$A+B=1$
recall 47 .
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)} p+\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}{ }_{\left(c_{i}+c_{j}\right)}}=1$.
substitute the set in (47).
$A=\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)}{ }^{p}=0.5$.
$B=\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c_{j}\right)} p=0.5$.
solve (10).
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)} p=\frac{5}{10}$.
cross multiplyin (13).
$10 d^{2}\left(a_{i}+a_{j}\right)^{g}=5 k^{2}\left(c_{i}+c j\right){ }^{p}$
make 10 the subject of the formula in (15).
$10=\frac{5 k^{2}\left(c_{i}+c_{j}\right)}{d^{2}\left(a_{i}+a_{j}\right)}{ }^{g}$
recall (11)..
$\frac{f^{2}\left(b_{i}+b j\right)^{h}}{k^{2}\left(c_{i}+c j\right)^{p}}=0.5 .$.
$\frac{f^{2}\left(b_{i}+b_{j}\right)^{h}}{k^{2}\left(c_{i}+c j\right)}{ }^{p}=\frac{5}{10}$.
cross multiplyin (19).
$10 f^{2}\left(b_{i}+b_{j}\right)^{h}=5 k^{2}\left(c_{i}+c j\right)^{p}$.
substitute (17) in (21)..
$\frac{5 k^{2}\left(c_{i}+c_{j}\right)^{p}}{d^{2}\left(a_{i}+a_{j}\right)^{g}} f^{2}\left(b_{i}+b_{j}\right)^{h}=5 k^{2}{\left(c_{i}+c_{j}\right)} p$.
divide both sides of (23) by $5 k^{2}\left(c_{i}+c_{j}\right) p$. .24)
$\frac{5 k^{2}\left(c_{i}+c_{j}\right)^{p}}{5 k^{2}\left(c_{i}+c_{j}\right)^{p} d^{2}\left(a_{i}+a_{j}\right)^{g}} f^{2}\left(b_{i}+b_{j}\right){ }^{h}=\frac{5 k^{2}\left(c_{i}+c_{j}\right)^{p}}{5 k^{2}\left(c_{i}+c_{j}\right)}$ p$\left.\ldots \ldots . .25\right)$
$\frac{1}{1 \times d^{2}\left(a_{i}+a_{j}\right)^{g}} f^{2}\left(b_{i}+b_{j}\right)^{h}=1$.
$\qquad$
$\frac{f^{2}{ }_{\left(b_{i}+b j\right)^{h}}}{d^{2}\left(a_{i}+a_{j}\right)^{g}}=1$.
$f^{2}\left(b_{i}+b_{j}\right)^{h}=d^{2}\left(a_{i}+a_{j}\right)^{g}$ $\qquad$
in one dimensional space (28) becomes.
$f^{2} b_{i} h=d^{2} a_{i} g$
make $f$ the subject of the formula in (30).
$f^{2}=\frac{d^{2} a_{i} g}{b_{i}{ }^{h}}$.
find the square root of both sides of (32)
$f=\sqrt{\frac{d^{2} a_{i} g}{b_{i} h}} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$
$f=d \sqrt{\frac{a_{i}{ }^{g}}{b_{i}{ }^{h}}}$.
recall (36) and (38)
$d=a_{i}+a_{j}$
$f=b_{i}+b_{j}$
in one dimension (36) and (38) becomes.
(37)
$d=a_{i}$
$f=b_{i}$.
substitute (38) and (39) in (35).

$b=a \sqrt{\frac{a_{i}^{g}}{b_{i}^{h}}} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$. 42$)$
$b=a \sqrt{\frac{a^{g}}{b}} \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots$...................
find c..............(44)
recall (10)...............(45)
$\frac{d^{2}\left(a_{i}+a_{j}\right)^{g}}{k^{2}\left(c_{i}+c_{j}\right)^{p}}=\frac{5}{10}$
cross multiplyin (46).
$10 d^{2}\left(a_{i}+a_{j}\right)^{g}=5 k^{2}\left(c_{i}+c_{j}\right) p_{\ldots \ldots \ldots \ldots(48)}$
${ }_{5 k} 2_{\left(c_{i}+c j\right)} p=10 d^{2}\left(a_{i}+a_{j}\right)^{g}$
divide both sides of (49) by 5 .
$\frac{5 k^{2}\left(c_{i}+c_{j}\right)^{p}}{5}=\frac{10 d^{2}\left(a_{i}+a_{j}\right)^{g}}{5} \ldots \ldots \ldots \ldots .61$
$k^{2}\left(c_{i}+c_{j}\right){ }^{p}=2 d^{2}\left(a_{i}+a_{j}\right)^{g}$
divide both sides of (52) by $\left(c_{i}+c_{j}\right)^{p}$
$\frac{k^{2}\left(c_{i}+c_{j}\right)^{p}}{\left(c_{i}+c_{j}\right)^{p}}=\frac{2 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}}$
$k^{2}=\frac{2 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}}$
find the square root of both side of (55).
$k=\sqrt{\frac{2 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}}}$.
recall (40). $\qquad$
$k=c_{i}+c j$
substitute (40) in (57).
$c_{i}+c_{j}=\sqrt{\frac{2 d^{2}\left(a_{i}+a_{j}\right)^{g}}{\left(c_{i}+c_{j}\right)^{p}}}$
in one dimension (60) becomes.
$\left.c_{i}=\sqrt{\frac{2 d^{2}{ }_{\left(a_{i}\right)^{g}}}{\left(c_{i}\right)^{p}}} \ldots \ldots \ldots \ldots \ldots . . . . . . . . .62\right)$
$c_{i}=d \sqrt{\frac{2\left(a_{i}\right)^{g}}{\left(c_{i}\right)^{p}}}$.
recall (36).
$d=a_{i}+a j$.
in one dimension (36) becomes.
$d=a_{i}$ (66)
substitute(66) in (63) $\qquad$
$c_{i}=a_{i} \sqrt{\frac{2\left(a_{i}\right)^{g}}{\left(c_{i}\right)^{g}}}$
$c=a \sqrt{\frac{2(a)^{g} g}{(c)}}$.
(69) shows that " c " does not form common prime factor with "a" easily - REAL surdic. it also shows that $\mathrm{c}=\mathrm{a}$
when $\sqrt{\frac{2(a)^{g}}{(c)^{p}}}=1$
recall (69).
$c=a \sqrt{\frac{2(a)^{g}}{(c)} p}$.
square both sides of (69)
$c^{2}=\left(a \sqrt{\frac{2(a)^{g}}{(c)^{g}}}\right)^{2}$
$\qquad$
$c^{2}=a^{2} \cdot \frac{2(a)^{g}}{{ }_{(c)} p}$
cross multiplyin (74) $\qquad$
$c^{2} \times(c) p=a^{2} .2(a)^{g}$. $\qquad$
apply law of algebra $\qquad$
$c^{2+p}=2 a^{2+g}$
note any value cannot just be substituted for p or g . p and g are simultaneous values.it shows binary computation.
a computer program is needed to solve for p and g in (78).
Take note
$\mathrm{a} \neq 5$ here since one is in another type of set.
recall (78)..............80)
$\mathrm{c}^{2+\mathrm{p}}=2 a^{2+g}$
applying the law of logarithm to (78)
$2+\mathrm{p}=\log _{\mathrm{c}} 2 a^{2+g}$ $\qquad$
applying the laws of logarithm to (82).
$2+\mathrm{p}=\log _{\mathrm{c}} 2+\log _{\mathrm{c}} a^{2+g}$
$2+\mathrm{p}=\log _{\mathrm{c}} 2+(2+g) \log _{\mathrm{c}} a$.
studying (85). it will be seen that (85) will be a linear integer equation if
$\mathrm{c}=2, \mathrm{a}=2$ (simplest case).
so we can say $b=2 a$ where $a=2$. on $e$ willobserve that in
this case I started from theoutput ( $\mathrm{c}^{\mathrm{Z}}$ ) so as to understand what happens in the processing stages of the numbers in (1). the ouput is the most important unit of a system that takes an input. so if $b=2 a$ then it means $b=2$ a must satisfy (1). if it does not satisfy (1) then A.beals conjecture will be finally as a matter of final conclusion be termed invalid.
recall (85).
$2+\mathrm{p}=\log _{\mathrm{c}} 2+(2+g) \log _{\mathrm{C}} a$
substitute $(\mathrm{c}=2)$ and $(\mathrm{a}=2)$ in $(85)$.
$2+\mathrm{p}=\log _{2} 2+(2+g) \log 22$
$2+\mathrm{p}=1+(2+g) \times 1$
$2+\mathrm{p}=1+(2+g) \ldots \ldots \ldots \ldots \ldots . .(91)$
$2+\mathrm{p}=1+2+g$. $\qquad$
$p=1+g$. $\qquad$ . 93
(94) shows that p can take integer value and g also can take an integer value with the power of $p$ greater than that of $g$ by 1 . so $x$ and $z, a, c$ are integers.
so we need to verify if $b=2$ a satisfies (1) and then if $h$ is an integer.
recall (43). $\qquad$ .(94)
$b=a \sqrt{\frac{a g}{b h}}$
if $\mathrm{b}=2 \mathrm{a}$ then $\sqrt{\frac{a^{g}}{b^{h}}}=2$. $\qquad$
$\sqrt{\frac{a^{g}}{b^{h}}}=2$. $\qquad$
square both sides of (96). $\qquad$ (97)
$\left(\sqrt{\frac{a^{g}}{b^{h}}}\right)^{2}=2^{2}$.

$$
\begin{align*}
& \frac{a^{g}}{b^{h}}=4 . \\
& a^{g}=4 b^{h}  \tag{100}\\
& \text { recall (78) } \\
& \mathrm{c}^{2+\mathrm{p}}=2 a^{2+g}  \tag{78}\\
& \text { recall (31). } \\
& \text { (102) } \\
& a^{2+g}+b^{2+h}=c^{2+p} \text {. }  \tag{31}\\
& \text { substitute }(\mathrm{b}=2 \mathrm{a}) \text { and (78) in (31). } \\
& a^{2+g}+(2 a)^{2+h}=2 a^{2+g}  \tag{104}\\
& (2 a)^{2+h}=2 a^{2+g}-a^{2+g}  \tag{05}\\
& (2 a)^{2+h}=a^{2+g} \text {. }  \tag{106}\\
& \text { apply the law of algebra in (106). }  \tag{107}\\
& (2 a)^{2+h}=a^{2} \times a^{g} \text {. }  \tag{108}\\
& \text { substitute (100) in (108). }  \tag{1け}\\
& (2 a)^{2+h}=a^{2} \times 4 b^{h}  \tag{10}\\
& \text { substitute }=2 \mathrm{a} \text { in (110) }  \tag{111}\\
& (2 a)^{2+h}=a^{2} \times 4(2 a)^{h}  \tag{12}\\
& (2 a)^{2+h}=a^{2} \times 2^{2}(2 a)^{h} \\
& \text { (2a) }=a^{2} \times 2^{2}(2 a)^{h} \ldots \ldots \ldots \ldots \text { (13) }
\end{align*}
$$

apply thelaw of algebra to (113).
$(2 a)^{2+h}=(2 a)^{2} \times(2 a)^{h} \ldots \ldots \ldots \ldots$ (15)
apply thelaw of algebra in (115). $\qquad$ (16)
$(2 a)^{2+h}=(2 a)^{2+h}$
since the left side of (117) is equal to the right side then it means
$\mathrm{b}=2 \mathrm{a}$ is a solution to (1). this means b factors a by a common
prime factor of 2 (etc).
finally we need to verify if $h$ is an integer
recall (100) $\qquad$ .(118)
${ }_{a} g=4 b^{h}$
apply thelaw of logarithm to (100) $\qquad$
$g=\log _{a} 4 b^{h}$
apply thelaw of logarithm to (120) $\qquad$
$g=\log _{a} 4+\log _{a} b^{h}$ (22)
apply the law of logarithm to (12)
$g=\log _{a} 4+h \log _{a} b$.
substitute $(\mathrm{b}=2 \mathrm{a})$ in (124).
$g=\log _{a} 4+h \log _{a} 2 a$.
substitute $(\mathrm{a}=2)$ in (126) $\ldots \ldots \ldots \ldots \ldots .$. (127)
$g=\log 24+h \log 22 \times 2$.
$g=\log _{2} 4+h \log _{2} 4$.
$g=\log 22^{2}+h \log 22^{2}$.
apply the law of logarithm to (130).
$g=2 \log _{2} 2+2 h \log _{2} 2$.
apply the law of logarithm to (132)
$g=2 \times 1+2 h \times 1$
$g=2+2 h \ldots \ldots \ldots \ldots \ldots$...........
find $h$ in (135). (36)
$2 h=g-2 \ldots \ldots \ldots \ldots$..........
$h=\frac{g-2}{2}$.
so if $g$ takes $2^{n}$ values where $n$ is an element of the positive integer set starting from 2 . then h will be an integer.
this proves that $h$ is also an integer.
so if $g=4$
$h=\frac{g-2}{2}=\frac{4-2}{2}=\frac{2}{2}=1$
then $\mathrm{h}=1$.
so one can congratulate A.beals that his conjecture holds
true - valid.
$a^{x}+b^{y}=c^{z}$.
$\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$ are all integers and (1) holds only if common prime factor relationship exists between the base
numbers( $a, b, c$ ).

## take note

recall (31)..................(140)
$a^{2+g}+b^{2+h}=c^{2+p}$
substitute the below values in (31)
$\mathrm{a}=2, \mathrm{~b}=4, \mathrm{c}=2, \mathrm{~g}=4, \mathrm{~h}=1, \mathrm{p}=1+\mathrm{g}=1+4=5$
$2^{2+4}+4^{2+1}=2^{2+5}$
$2^{2+4}+2^{2(2+1)}=2^{2+5}$
$2^{6}+2^{2(3)} \neq 2^{7}$.
$2^{6}+2^{6} \neq 2^{7}$.
note when I said $\mathrm{a}=2$, and $\mathrm{c}=2$ above. thisis called conditioned setting. so using all the values derived will not make the right side of (1) equal the left side. thisis because when $\mathrm{c}=2$, a may not be 2 . it may be another number. That is why i called it thesimplest case. the fact remains that $b=2$ a satisfies (1) and $c$ and $a$ are in (1)
when it satisfyies it. so "a" can take 2 - power .that is $2^{n}$.
see the log function .

In baby explanation. $\mathrm{b}=2 \mathrm{a}$ means $\mathrm{i}(\mathrm{b})$ am two times of something(a)
that exist in $2^{\mathrm{n}}$ forms. so any day any timein any generation.
b willstill factor a out by 2 which is a prime number
when a solution is needed.
real life approach to finding $\mathrm{a}, \mathrm{b}, \mathrm{c}, \mathrm{x}, \mathrm{y}, \mathrm{z}$

$$
\begin{aligned}
& c^{2+p}=2 a^{2+g} ; \quad c=2 \\
& 2^{2+p}=2 a^{2+g} \\
& 2^{2+p}=2\left(a^{2} \times a^{g}\right) ; a^{g}=4 b^{h} \\
& 2^{2+p}=2\left(a^{2} \times 4 b^{h}\right) ; \quad b=2 a \\
& 2^{2+p}=2\left(a^{2} \times 4(2 a)^{h}\right)=2\left(a^{2} \times 2^{2}(2 a)^{h}\right) \\
& 2^{2+p}=2\left(a^{2} \times 2^{2}(2 a)^{h}\right) \\
& 2^{2+p}=2\left((2 a)^{2} \times(2 a)^{h}\right) \\
& \left.2^{2+p}=2(2 a)^{2+h}\right) \\
& \left.2+p=\log _{2} 2(2 a)^{2+h}\right) \\
& 2+p=\log _{2} 2+\log 2(2 a)^{2+h} \\
& 2+p=\log _{2} 2+(2+h) \log _{2}(2 a)
\end{aligned}
$$

```
\(2+p=\log 22+(2+h)(\log 22+\log 2 a)\)
\(2+p=1+(2+h)(1+\log 2 a)\). 1 )
\[
2+p=1+2+2 \log 2 a+h+h \log 2 a
\]
\[
2+p=3+2 \log 2 a+h+h \log 2 a
\]
\[
p-1=2 \log _{2} a+h+h \log _{2} a
\]
\[
p-1=2 \log 2 a+h(1+\log 2 a) \ldots \ldots \ldots \ldots(\mathrm{p} \text { and } \mathrm{h})
\]
\[
p-1-2 \log 2 a=h(1+\log 2 a)
\]
\[
\begin{equation*}
\frac{p-1-2 \log _{2} a}{\left(1+\log _{2} a\right)}=h . \tag{f}
\end{equation*}
\]
\(g=\log _{a} 4+h \log _{a} b ; \quad \mathrm{b}=2 \mathrm{a}\)
\(g=\log _{a} 4+h \log _{a} 2 a\).
``` \(\qquad\)
```

$g=\log _{a} 4+h\left(\log _{a} 2+\log _{a} a\right)$
$g=\log _{a} 4+h\left(\log _{a} 2+1\right)$.
substitute (2) in (3)

```
\(g=\log _{a} 4+\left(\frac{p-1-2 \log _{2} a}{\left(1+\log _{2} a\right)}\right)\left(\log _{a} 2+1\right) \ldots \ldots . .(\mathrm{p}\) and g\()\).
recall. (8)
\(2+\mathrm{p}=\log _{\mathrm{c}} 2+(2+g) \log _{\mathrm{C}} a\).
\(\mathrm{c}=2\)
\(2+\mathrm{p}=\log 22+(2+g) \log _{2} a\)
\(2+\mathrm{p}=1+(2+g) \log _{2} a\)
\(p+1=(2+g) \log _{2} a\). (p and g).
take note (4) and (6) are thesame equation - if \(p=5, a=2\) find \(g\) in both cases one will get 4 .
recall (1)
\(2+p=1+(2+h)(1+\log 2 a)\). ..1)
recall (5)
\(2+\mathrm{p}=\log _{\mathrm{c}} 2+(2+g) \log _{\mathrm{c}} a\)
substitute ( \(c=2\) ) in (5)
\(2+\mathrm{p}=\log _{2} 2+(2+g) \log _{2} a\)
\(2+\mathrm{p}=1+(2+g) \log 2 a \ldots \ldots \ldots \ldots . .(7)\)
(1) \(-(7)\)
\(2+p-(2+\mathrm{p})=1+(2+h)\left(1+\log _{2} a\right)-\left(1+(2+g) \log _{2} a\right)\)
\(0=0+(2+h)(1+\log 2 a)-(2+g) \log 2 a\)
\((2+g) \log _{2} a=(2+h)\left(1+\log _{2} a\right) . .(\mathrm{g}\) and h\()\)
take note (3) and (8) are thesame equation. if one use
\(\mathrm{h}=1, \mathrm{a}=2\), in both one willget \(\mathrm{g}=4\) in both.
so the above relationships \((\mathrm{g}, \mathrm{h}),(\mathrm{p}, \mathrm{h}),(\mathrm{g}, \mathrm{p})\) is needed to know the typeof numbers that fit conjecture equation (1).
the writer is not a computer scientist and has almost zero knowlegde in computing science. so how did the writer know assuredly well that the \((0.5,0.5,0.5,0.5)\) tetra set will validate A.beals conjecture out of the millionsof possibledual sets? was it a guess? definitely not. theidea came from the intelligence of the writer. it is called timeprogramming not binary. a timeprogram faults, operates, processes more than one million times faster than a binary computer - program. so since time
is related to only one quantity in physics called frequency (f)
as stated below
\(f=\frac{1}{t(s)}\)
this means A.beals was not using a binary computer. he used a synchronous 4 -input "super computer" (S4ISC)-
in the terms of the writer. thissupercomputer used by A.beals has a timeor processor speed rated in hertz or something - seconds. this leads us to say a binary program is not rated in seconds but in per binary input (PBI). a binary computer cannnot detect the A.beals common prime factor solution.

\section*{validation or invalidation of fermat}

As done for A.beals.it is only thesynchronous 4 -input
supercomputing \((0.5,0.5,0.5,0.5)\) tetra set that can validate or invalidate fermats last theorem. the decision of this tetra set is final. so we want tofind if there a condition where all the increments on the \(\mathrm{x}, \mathrm{y}, \mathrm{z}\) postive integer axiz \(-\mathrm{g}, \mathrm{h}, \mathrm{p}\) respectively is simultaneouly thesame. i dont think it exists. but find out if it exists. so one will lay out the three relationships
to study thispossibility as; \(\mathrm{g}=\mathrm{h}=\mathrm{p}\).
recall the below typical solution equations to (1)
\(p-1=2 \log _{2} a+h(1+\log 2 a)\).
\(g=\log _{a} 4+h\left(\log _{a} 2+1\right) \ldots \ldots\). B)
\(p+1=(2+g) \log 2 a \ldots \ldots \ldots \ldots\) (6)
(1a) becomes
\(p=2 \log 2 a+h(1+\log 2 a)+1\)
(6) becomes
\(p=(2+g) \log _{2} a-1\)
so one has the below equations
\(p=(2+g) \log _{2} a-1\)
\(\left.g=\log _{a} 4+h\left(\log _{a} 2+1\right) \ldots \ldots . . B\right)\)
\(h=\frac{p-1-2 \log _{2} a}{\left(1+\log _{2} a\right)}\)
so studying (13), (3), (2) can \(\mathrm{g}, \mathrm{p}\), h ever have equal value at thesame
time. thisis not possible by inspection.
this is because \(g\) depends on \(h\). so both \(g\) and \(h\) cannot have equal value at a time.also \(\log _{a} 4\) can never be zero and \(\log _{a} 2\) can never be zero
since one wants all varibles to exist as integers.
\(g=\log _{a} 4+h\left(\log _{a} 2+1\right) \ldots \ldots\). B)
this means fermats last theorem remains validin any domain of reasoning forever.

\section*{IMPLICATION OF (258)}
there are five implications of (258). they are section 1, section 2, section 3, section 4-goldbach, section 5-solitary- 10

\section*{SECTION 1}

\section*{X1-INDEPENDENT GRAPH}
1) \(b=2 k, b=3 k, b=5 k, b=9 k, b=11 k\). so the \(k\) is the gradient of the line. so the intercept on the \(Y\) axis in all the graphs is 0 .

\section*{Graph1}

Linear graph \(y=m x+c ; m=\) gradient, \(c=\) intercept on the \(y\)-axis. the data points can be generated - high school maths.
1) \(\mathrm{b}=2 \mathrm{k} ; \quad \mathrm{y}=2 \mathrm{x} \quad ; \mathrm{m}=2\)
2) \(\mathrm{b}=3 \mathrm{k} ; \quad \mathrm{y}=3 \mathrm{x} \quad ; \mathrm{m}=3\)
3) \(\mathrm{b}=5 \mathrm{k} ; \quad \mathrm{y}=5 \mathrm{x} \quad ; \mathrm{m}=5\)
4) \(\mathrm{b}=7 \mathrm{k} ; \quad \mathrm{y}=7 \mathrm{x} \quad ; \mathrm{m}=7\)
5) \(\mathrm{b}=11 \mathrm{k} ; \quad \mathrm{y}=11 \mathrm{x} \quad ; \mathrm{m}=11\)
the graph below shows flight of eg an aeroplane at different angles on the run way. take off on run way. so ( \(\mathrm{b}=\mathrm{vk}\) ) is actually an air friction equation which explains air resistance to flight of an aeroplane at different take off angles. so can explain plane crash caused by air friction. Due to the geometry of the airplane and its take off angle. so the best condition for flight is take off at optimum value of " \(v\) ". optimum means not too high nor the lowest \(-\mathrm{b}=2 \mathrm{a}\). so take off angle of an aeroplane \(=\tan ^{-1} 2=63.435^{\circ}\); since \(\tan \theta=\) gradient


Fig 1-Showing the independent graph

\section*{X2-DEPENDENT GRAPH}

Linear graph \(y=m x+c ; m=\) gradient=slope, \(c=\) intercept on the \(y\)-axis. the data points here are not generated from high school maths but from above.
b is plotted on the y -axis and \(v\) plotted on the x -axis.
data points:
1) \(\mathrm{b}=10 ; \quad v=2\)
2) \(\mathrm{b}=15 \quad v=3\)
3) \(\mathrm{b}=25 ; \quad v=5\)
4) \(\mathrm{b}=35 ; \quad v=7\)
the slope or gradient of this graph is expected to be 5 . But if not 5 an error has occurred somewhere. the graph is expected to be a straight line \((b=v k)\) graph which passes through the origin.


FIG 2

This is a theoretical example without plotting graph.
\(\mathrm{m}=\mathrm{y}_{2}-\mathrm{y}_{1} / \mathrm{x}_{2}-\mathrm{x}_{1} ; \mathrm{y}_{2}=15, \mathrm{y}_{1}=10 \quad \mathrm{x}_{2}=3 \quad \mathrm{x}_{1}=2\)
\(\mathrm{m}=15-10 / 3-2=5 / 1=5\)
so \(\mathrm{m}=\) slope \(=\) gradient \(=5.5\) is a prime number. this means that the prime number 5 satisfies the A. beals and fermat conjecture whether as an exponent or as a base number. this also means prime number has a great significance in the study of A. beals or fermats conjecture equation.
I did not plot the figure below. MS-Excel plotted it. so still verify if the slope is not 5 by using a paper graph plot.


FIG 3-PRIME FACTOR PLOT
\(\underline{\text { for } v \text { equals } 9}\)
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 9
\(5 * 9=9 *(1+4)\)
\(45=9 *(1+4)\)
\(\mathrm{b}=45 \quad ; \mathrm{v}=9\)
for \(v\) equals 11
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 11
\(5 * 11=11 *(1+4)\)
\(55=11 *(1+4)\)
\(\mathrm{b}=55\); v=11
for \(v\) equals 13
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 13
\(5 * 13=13 *(1+4)\)
\(65=13 *(1+4)\)
\(\mathrm{b}=65 \quad ; \mathrm{v}=13\)
for \(v\) equals 15
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 15
\(5 * 15=15^{*}(1+4)\)
\(75=15 *(1+4)\)
\(\mathrm{b}=75\); v=15
this proves that in theoretical physics \(15(3 * 5)\) is a prime number. but in pry school it is not
for \(v\) equals 17
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 17
\(5 * 17=17 *(1+4)\)
\(85=17 *(1+4)\)
b=85 ; v=17
for \(v\) equals 19
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 19
\(5 * 19=19 *(1+4)\)
\(95=19 *(1+4)\)
b=95 ; v=19
for \(v\) equals 21
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 21
\(5 * 21=21 *(1+4)\)
\(105=21 *(1+4)\)
b=105 ; v=21
this proves that in theoretical physics \(21(3 * 7)\) is a prime number. but in pry school it is not
for \(v\) equals 23
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 23
\(5 * 23=23 *(1+4)\)
\(115=23 *(1+4)\)
b=115 ; v=23

The increase from one prime number (factor) to another prime number is 10 in the " b " WORLD starting from the second column of FIG 2. this 10 is the number in the first row of the first column of FIG 2-b data point-where the down arrow points. the first column is to be regarded as partially collapsed (totally collapsed-does not exist). because it has 2 and 10 which is are both even numbers. 5 has supremacy over the even domain. this collapse is caused by the most important property of the real number line. so this is the reason the first and second column does not show the trend difference of 10 . that is between the first and second column the difference is 5 .
continue the trend to check for incoherence (difference not 10) and alarm when you find one.
the above trend proves A.beals conjecture of common prime factor solution as meaningful because the above theory leads to a prime number or factor plot-which proves the existence of prime factors (5) as solutions to the A. beals equation.
so graph 2 is called the prime number or factor plot. which shows the behavior of prime numbers in their solution to the A.beals equation and also its application to airflight study as a case study. Also from common sense, checking the positive integer number line, the prime numbers are few compared to other numbers. so the percentage of prime numbers on the real number line is about \(2 \%\). well you can give it any percent you wish.

\section*{Reality of B}

From above it seems "b" is known only from the study of the conjecture (1) whether A.beals or fermat- b world. or that \(b\) is a letter in equation (1). it is not so. \(b\) has a real life name and meaning. Every letter or symbol in a
scientific equation has a name. so all letters in (1) has a name by which its appropriate value may be known without using any computer or exerting struggle.
Define b : how can one define b in a real sense forgetting about any conjecture? or what is the significance of b in number theory.
studying FIG 2. it will be found that \(\mathrm{r}_{11} * \mathrm{r}_{22}=\mathrm{r}_{12} * \mathrm{r}_{21} ; \mathrm{b} 1 * \mathrm{v} 2=\mathrm{b} 2 * \mathrm{v} 1\). this general relationship holds till infinity.
\(\mathrm{r}_{11^{-}}\)number in row 1 column 1 (b1)
\(\mathrm{r}_{22}\) - number in row 2 column 2 (v2)
\(\mathrm{r}_{12^{-}}\)number in row 1 column 2 (b2)
\(\mathrm{r}_{21}\) - number in row 2 column 1 (v1)
so \(b\) is called the equation index or factor of the prime factors of the real umber line.

\section*{EXAMPLES}
\(75 * 17=85 * 15 ; 17-15=2 ; \mathrm{b}=2 \mathrm{a}\)
\(1275=1275\)
95*21=105*19;21-19=2; \(\mathrm{b}=2 \mathrm{a}\)
1995=1995
the 2 in \(\mathrm{b}=2 \mathrm{a}\) validity proof of andy beals conjecture(2) is the difference between a consecutive even, odd, prime number-first column.

\section*{Section2}

As one obtained the prime factor plot. then one can also obtain the even number plot to study if any trend exists in it. it is expected to give an even number or 5 as the gradient from which one can conclude the goldbach conjecture.
\[
\mathrm{b}=10 ; \quad v=2
\]

\section*{for \(v\) equals 4}
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 4
\(5^{*} 4=4^{*}(1+4)\)
\(20=4 *(1+4)\)
\(b=20 \quad ; v=4\)
for \(v\) equals 6
\[
10=2(1+4)
\]
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 6
\(5^{*} 6=6^{*}(1+4)\)
\(30=6 *(1+4)\)
\(\mathrm{b}=30 \quad ; \mathrm{v}=6\)
for \(v\) equals 8
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 8
\[
\begin{aligned}
& 5 * 8=8 *(1+4) \\
& 40=8 *(1+4)
\end{aligned}
\]
\[
\mathrm{b}=40 \quad ; \mathrm{v}=8
\]
for \(v\) equals 10
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 8
\(5 * 8=8 *(1+4)\)
\(40=8^{*}(1+4)\)
\(b=40 \quad ; v=8\)


FIG4
\(\mathrm{b} 1 * \mathrm{v} 2=\mathrm{b} 2 *\) v1 holds in FIG4
so \(b\) is called the equation index or factor of the even integers of the real number line

Obtaining the gradient - a theoretical example without plotting graph.
\(\mathrm{m}=\mathrm{y}_{2}-\mathrm{y}_{1} / \mathrm{x}_{2}-\mathrm{x}_{1} ; \mathrm{y}_{2}=20, \mathrm{y}_{1}=10 \quad \mathrm{x}_{2}=4 \quad \mathrm{x}_{1}=2\)
\(\mathrm{m}=20-10 / 4-2=10 / 2=5\)
so \(\mathrm{m}=\) slope \(=\) gradient \(=5\)
this again proves the preeminence of 5 above all numbers in number theory. it has a special baby honour. although
\(1,2,3,4\) is more supreme than 5 but because 5 has a special supremacy. all this numbers \(1,2,3,4\) honour 5 by abandoning their supremacy so hiding their
personality so only 5 is seen in all situations. so the above shows that 5 will not let 4 show its superior supremacy that it should prove goldbach conjecture.
I did not plot the FIG 5 below. MS-Excel plotted it. so still verify if the slope is not 5 by using a paper graph plot.


FIG 5- EVEN NUMBER PLOT

\section*{Section3}

As the even number plot is obtained. the odd number plot can also be obtained to study if any trend exists in it. it is expected to give an odd number or 5 most likely again as the gradient.
\(\mathrm{b}=10\); \(v=2\)
for \(v\) equals 1
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 1
\(5^{*} 1=1^{*}(1+4)\)
\(5=1 *(1+4)\)
for \(v\) equals 3
\[
10=2(1+4)
\]
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 3
\(5^{*} 3=3 *(1+4)\)
\(15=3 *(1+4)\)
\(b=15 \quad ; v=3\)
for \(v\) equals 5
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 5
\(5 * 5=5 *(1+4)\)
\(25=5 *(1+4)\)
\(\mathrm{b}=25 \quad ; \mathrm{v}=5\)
for \(v\) equals 7
\(10=2(1+4)\)
divide both sides by 2
\(5=(1+4)\)
multiply both sides by 7
\(5^{*} 7=7 *(1+4)\)
\(35=7 *(1+4)\)
b=35 ; v=7


FIG5
\(\mathrm{b} 1 * \mathrm{v} 2=\mathrm{b} 2 * \mathrm{v} 1\) holds in FIG5
so \(b\) is called the equation index or factor of the odd integers of the real number line so from the three statements about \(b\). \(b\) is finally named- the equation index or factor of the real number line.
obtaining the gradient- theoretical example without plotting graph.
\(m=y_{2}-y_{1} / x_{2}-x_{1} ; y_{2}=15, y_{1}=5 \quad x_{2}=3 \quad x_{1}=1\)
\(\mathrm{m}=15-5 / 3-1=10 / 2=5\)
so \(\mathrm{m}=\) slope \(=\) gradient \(=5\)
I did not plot the FIG 5 below. MS-Excel plotted it. so still verify if the slope is not 5 by using a paper graph plot.


FIG 6-ODD NUMBER PLOT

\section*{what about the name of "a" in (1)}
"a" has a name that is related to a constant factor (of the real number line) from the fact that it is always 5 as explained above.

\section*{SECTION 4}

\section*{EXISTENCE OF THE GOLD BACH CONJECTURE}

5 is the slope from the prime factor, even and odd number plot. this shows the significance of 5 and the existence of the goldbach conjecture. so one can write the below
\(5=2+3\); this means 5 can be expressed as a sum of two prime numbers. this means 5 which is an odd number behaves like an even number whose attribute was explained in the goldbach conjecture.

\section*{VALIDITY PROVE OF THE GOLD BACH CONJECTURE}

FIG 5 shows that the step change from one odd number to another odd number in the (b axis) is 10 . a step change of 10 is also observed for the even number as explained. a step change of 10 is also observed for the prime numbers as explained. all three plots- prime number, odd and even number plot has a slope of 5. this proves the existence and validity of goldbach conjecture. the underlined three means goldbach conjecture is referring to three numbers in relationship.

\section*{Important notice}

An unknowledgeable person would reason and say that the prime factor plot was not important because it has a discontinuity. so saying three plot is a way of cooking lies in theory. secondly, if the whole world was to chose the most important plots among the three plots. the whole world will chose the even and odd plot-this will make the whole world unknowledgeable. so the whole world will score 0 . however, this is Alexanders answer- the most important plots do not exist but there is just one most important plot which is the prime number plot. it is the most important plot on the real number line. the other two plots can be done without. this means prime numbers are the most important numbers on the real number line. so one needs three plots-read reasons below.

\section*{Simple knowledge of prime numbers - Examples}
1) It reveals a law of economics that when a commercial good is very very very expensive, only two percent ( \(2 \%\) ) of the world will be able to buy it. eg those who can buy the Rolls Royce Phantom Coupe out of the world are \(2 \%\) of the world. why \(2 \%\) - if branded well- only half of S. Arabia, Brunei, Qatar, Kuwait population etc will buy it. After making the \(2 \%\) sales, diminishing returns sets on this company that owns the phantom brand to liquidate it. this diminishing return thus sends the end profit of this company to \(2 \%\). so if this company makes \(\$ 10\) dollars as profit.
eventually the account will draw back to \(\$ 0.2\). so this leads to say the only way to maximize self profit when selling very very very expensive commodity is to sell the company (brand) to another person or company who has \(98 \%\) wealth after a particular season of self maximized profit.

Also when a good is cheap like tomato in the market- \(98 \%\) of the world will be able to buy it. why \(98 \%\) -
Everyday, all over the world, humans buy tomato. so if a company sells tomato. it makes \(98 \%\) sales. later, diminishing returns sets on this tomato company to liquidate it. this diminishing return thus sends the end profit of this company to \(98 \%\). so it loses \(2 \%\) of its profit. so if this company makes \(\$ 10\) dollars as profit. eventually the account will draw back to \(\$ 9.8\).this is because tomato is a general commodity.
2) If there are 10 students in a class and they all write a promotional exam. now two students have the same score in the exam. so the teacher will give these two students the same rank of first \(\left(1^{\text {st }}\right)\). so for the number of students in the class to be 10 . or in order for the teacher not to start looking for the where about of the last person in the classAsking did he write the exam or didn't he write the exam? The second rank after the two first ( \(\left.1^{\text {st }}\right)\) is \(3^{\text {rd }}\). As simple as this question is \(98 \%\) of the world will score zero by chosing ( \(2^{\text {nd }}\) ) if they encounter it in a multi-choice exam in the first time without pondering carefully. so reason I revealed this type of question-it is rare having two first at a time. just like, it is rare having two fastest athletes cross the finish line at the same micro time not time. This second examples is explained in (2) below.

Simple knowledge in theory- why is the prime number plot the most important plot in number theory?
The start discontinuity in the prime number plot show the two most important properties ( \(10 \& 2\) ) of the real number line. these two most important properties of the real number line are that;
1) All the numbers in any plot are obtained from the real number line. so how can one be sure that the number one is using to prove the goldbach conjecture is from the real number line and not from an unknown complex world? prime factor plot.
2) "no number repeats itself twice on the real number line"-stolen from below. this collapse of the even domain is revealed when the prime number set is withdrawn from the set of the odd numbers. so when the odd domain which contains prime numbers is repeated the even domain cleaves, folds or collapses.

So if asked to prove the Goldbach conjecture. the first line of prove is to show that the source numbers are from the real number line and it simply means draw the table of the prime factors.
\(10=5+5 \ldots \ldots \ldots .(1)\). (1) means the step change for the three plots is equal to the double sum of the gradient in a plot. goldbach conjecture says -sum of two positive prime integers is an even positive integer.
Another theoretical formulation or model will be needed to prove the below equations. eg one can have : \(a^{x}-b^{y}=\) \(c^{\mathrm{z}}\)
however the below still follows from (1) by manipulation.
\(4=2+2\)
\(6=3+3\)
\(8=3+5\)

Gold bach conjecture is only valid in the b-domain. this is because the step change occurred in the b domain. . this \(b\) domain is an unsual and an almost impossible to locate domain. it was possibly located by the solution to the conjecture (1). so any one who can not solve (1) mathematically, will not be able to prove the goldbach conjecture.

\section*{GRAPHICAL PROVE OF GOLD BACH CONJECTURE}
step change- means a movement by an external agent etc (man, robot) etc. all numbers on the real number line are static they don't move. so each curve in FIG 7 represents a step change along three numbers-5,15,25


FIG 7
In FIG 7- the width or area inside one semi curve is 10 . two numbers brought 10 into existence. each semi dome is called the goldbach. \(10(5+5)\).

PROVE OF THE GOLDBACH IN THEOREM

\section*{MATHEMATICAL FORMULATION OF THE GOLDBACH CONJECTURE}
(oldest theorem unknown for millions of years in number theory)
theorem
1) prime number
\(b=(b 2, b 3, b 4\),
\(\mathrm{v}=(\) set of prime numbers starting from \(3 ; 3,5,7 \ldots \ldots \ldots)\)
plot \(b\) against \(v\) - the slope is \(x\)
\[
\mathrm{b}_{\mathrm{n}} * \mathrm{v}_{\mathrm{n}+1}=\mathrm{b}_{\mathrm{n}+1} * \mathrm{v}_{\mathrm{n}} \quad \text { or } \quad \mathrm{b}_{2} * \mathrm{v}_{3}=\mathrm{b}_{3} * \mathrm{v}_{2}
\]
\[
\mathrm{b}_{\mathrm{n}+1^{-}}-\mathrm{b}_{\mathrm{n}}=\mathrm{y}
\]

Find the set \(b\), \(v\). find \(x\) and \(y\)
2) even numbers
\(b=(b 2, b 3, b 4, \ldots \ldots \ldots \ldots\).
\(\mathrm{v}=(\) set of even numbers starting from \(2 ; 2,4,6 \ldots \ldots \ldots\). \()\)
plot b against v - the slope is x
\[
\mathrm{b}_{\mathrm{n}} * \mathrm{v}_{\mathrm{n}+1}=\mathrm{b}_{\mathrm{n}+1} * \mathrm{v}_{\mathrm{n}} \quad \text { or } \quad \mathrm{b}_{2} * \mathrm{v}_{3}=\mathrm{b}_{3} * \mathrm{v}_{2}
\]
\[
\mathrm{b}_{\mathrm{n}+1}-\mathrm{b}_{\mathrm{n}}=\mathrm{y}
\]

Find the set \(b\), v. find \(x\) and \(y\)
3) odd numbers
\(\mathrm{b}=(\mathrm{b} 2, \mathrm{~b} 3, \mathrm{~b} 4, \ldots \ldots \ldots \ldots .\).
\(\mathrm{v}=\) (set of odd numbers starting from \(3 ; 3,5,7 \ldots \ldots \ldots\) )
plot \(b\) against \(v\) - the slope is \(x\)
\[
\begin{gathered}
\mathrm{b}_{\mathrm{n}}^{*} \mathrm{v}_{\mathrm{n}+1}=\mathrm{b}_{\mathrm{n}+1} * \mathrm{v}_{\mathrm{n}} \quad \text { or } \\
\mathrm{b}_{\mathrm{n}+1}-\mathrm{b}_{\mathrm{n}}=\mathrm{y}
\end{gathered}
\]

Find the set \(b\), v. find \(x\) and \(y\)
\[
y=x+x=\text { goldbach conjecture }
\]

Hint: it may be thought that simultaneous equation may not lead to the set \(b\). this is not true. this proves that b's root is not a function of any conjecture. " \(b\) " is what should be known in mathematics or in number theory without any knowledge of any conjecture or its solutions.

\section*{solution-prime factor}

\(\mathrm{b}_{\mathrm{n}} * \mathrm{v}_{\mathrm{n}+1}=\mathrm{b}_{\mathrm{n}+1} * \mathrm{v}_{\mathrm{n}}\)
\(b_{n+1}-b_{n}=y\)
\[
\begin{equation*}
5 a=3 b \ldots \ldots \ldots \ldots(1) \tag{2}
\end{equation*}
\]
\(b-a=y \ldots\) (3)
\(7 \mathrm{~b}=5 \mathrm{c}\)
\(c-b=y \ldots\) (4)
\(y\) in (3) and (4) should be a number from experience because if not a number, non of a,b,c,y will give a number. so the question will be unsolvable. since y is not a number then one must find y first in order to solve this four equations.
from (1)
\(5=3 \mathrm{~b} / \mathrm{a}\).
from (2)
\(5=7 \mathrm{~b} / \mathrm{c}\).
\((5)=(6)\)
\(3 \mathrm{~b} / \mathrm{a}=7 \mathrm{~b} / \mathrm{c}\)
b cancels on both sides
\(3 / a=7 / c \ldots \ldots \ldots \ldots\) (8)
\(3 \mathrm{c}=7 \mathrm{a}\).
\((3)=(4) \ldots \ldots \ldots \ldots\). 10 )
\(\mathrm{b}-\mathrm{a}=\mathrm{c}-\mathrm{b}\)
\(\mathrm{b}+\mathrm{b}=\mathrm{c}+\mathrm{a}\)
\(2 b=c+a\)
\(\mathrm{c}+\mathrm{a}=2 \mathrm{~b}\).
recall (9)
\(7 \mathrm{a}=3 \mathrm{c}\).
find a in (16)
\(a=3 c / 7\).
recall (2)
\(7 \mathrm{~b}=5 \mathrm{c}\)
find \(b\) in (2)
\(b=5 \mathrm{c} / 7\)
recall (14)
\(\mathrm{c}+\mathrm{a}=2 \mathrm{~b}\)
substitute (17) and (18) in (14)
\(\mathrm{c}+3 \mathrm{c} / 7=2(5 \mathrm{c} / 7)\)
multiply both sides of (19) by 7
\(7(\mathrm{c}+3 \mathrm{c} / 7)=2(5 \mathrm{c} / 7) 7\)
\(7 \mathrm{c}+3 \mathrm{c}=10 \mathrm{c}\)
\(10 \mathrm{c}=10 \mathrm{c}\) (22).
\(10=10\).
(22) means 10 what you don't know means 10 what you don't know. the- what you don't know is the (c). so what you don't know is 10 . This is because the two c's will cancel out and you will be left with 10 on both sides. so (23) means 10 what you now know means 10 what you now know. so what you now know is 10 . Or say (22) means you are solving a problem that has to do with 10 . so move from there. scientists who lived in past years would have called (23) indeterminate solution.
since one is to first find \(y\). so \(y=10\)
recall (3), (4)
\(b-a=y\)
\(c-b=y\)
substitute 10 in (3), (4).
\(b-a=10\).
\(\mathrm{c}-\mathrm{b}=10\) \(\qquad\) (25)

Find c in (25)
\(\mathrm{c}=10+\mathrm{b}\).
substitute c in (2)
\(7 \mathrm{~b}=5 \mathrm{c}\)
\(7 \mathrm{~b}=5(10+\mathrm{b})\)
\(7 \mathrm{~b}=50+5 \mathrm{~b}\)
\(7 b-5 b=50 \ldots \ldots \ldots \ldots \ldots .\). ................
\(2 b=50 \ldots \ldots \ldots \ldots \ldots \ldots\)...................
\(\mathrm{b}=50 / 2=25\).
\(\mathrm{b}=25 \ldots \ldots \ldots\). (32)
recall (2)
\(7 \mathrm{~b}=5 \mathrm{c}\)
substitute (32) in (2).
\(7(25)=5 \mathrm{c}\)
\(5 \mathrm{c}=7(25)\) (33b)
\(\mathrm{c}=7(25) / 5\)
\(\mathrm{c}=7 * 5\)
\(\mathrm{c}=35\). (33e)
recall (1)
\(5 \mathrm{a}=3 \mathrm{~b}\).
substitute (32) in (1).
\(5 \mathrm{a}=3 * 25\)
\(a=3 * 25 / 5\)
\(a=3 * 5=15\)
\(\mathrm{a}=15\).
\(\mathrm{b}_{\mathrm{n}+1}-\mathrm{b}_{\mathrm{n}}=\mathrm{y}\)
\(\mathrm{c}-\mathrm{b}=\mathrm{y}\)
25-15=10
so since \(a, b, c\) are known one can compute the gradient theoretically it is 5 . this same mathematical procedure can be done for the even and the odd.

Goldbach in his conjecture was saying prove that - the change in the equation index or factor of the real number line (b) is equal to the double sum of the gradient on the real number line- \(\Delta b=m+m\)

\section*{INVALIDITY PROVE OF GOLDBACH CONJECTURE}

There is another frame of refrence where goldbach conjecture proven above becomes totally invalid. this accounts for why goldbach will almost never be proven. this Invalidity prove of goldbach conjecture is also called WELLS NON REPEATA CONJECTURE. since it explains why goldbach conjecture seems not to exist.

The slope of a graph represents a general view of the graph. the 10 used above is not a general view but an aspect of the graph . the slope in FIG 3, FIG 5 and FIG 6 are all equal to 5 . this shows the pre-eminence of 5 above all numbers on the real number line or in number theory. it has a special baby honour. since 5 is the slope and more supreme than \(6,7,8\) etc and 5 preceeds 6 . this thus means all numbers that precedes 5 are all more supreme than 5 . so \(1>2>3>4>5\) - order of supremacy. so the supreme numbers are ( \(1,2,3,4,5\) ). however 5 has a special supremacy over these numbers ( \(1>2>3>4\) ) because 5 is closest to the set of numbers from (6--infinity-non supreme). since this whole set of non supreme numbers outnumbers the supreme numbers. then one will say again 5 has a special supremacy. all numbers whether supreme or non supreme honour 5 by abandoning their supremacy so hiding their personality so only 5 is seen in all situations. so the above shows that 5 will not allow any number on the real line to show their superior supremacy over 5 most especially the even domain. this helps one to conclude that prime number 5 has superiority over the even and other numbers in the odd domain. it will not let \(4=2+2\) or any number bring out its head in a general view of number theory. since it does not allow other numbers to bring out their heads in number theory then this means goldbach conjecture will be unsolvable for centuries since most numbers are in the real number line-and they don't bring their heads. so only a person that can solve (1) to obtain the \(b\) domain can prove the goldbach existence.

\section*{THEORETICAL PHILOSOPHY 1}
so a person that bears the name Euler, Einstein will not be forgotten in the history of the world because their name starts with letter " e " which is the \(5^{\text {th }}\) letter of the alphabetic table. his works are valid from one generation to the other until the Earth does not exist again. this previously explained is called theoretical philosophy. check if

Rutherford has a name like "earnest or ernest".

\section*{THEOLOGY}
man was created on the 6 day- a creature with dominion over the earth. so since 5 is superior to 6 . this means that a supreme being (5) came on the 5thday to create man. this means a supreme being existed before the creation of man and has supremacy of dominion over man. (check). Also, man is known to have dominion over all things on the earth. however, since it is established that a supreme being came through the \(5^{\text {th }}\) day to create man. this further means
1) All things created on the \(5^{\text {th }}\) day have dominion or superior authority over man. if any was created.
2) since the supreme being can create. this means the supreme being created 5 animals, 5 plants etc on the \(5^{\text {th }}\) day that are more supreme in authority than man if any was created. this means that if a man does not recognize as an example the plant created on the \(5^{\text {th }}\) day and he maltreats this plant eg spits on it. then that man is subject to condemnation.
3) from 2) that man has dominion over all things as written in the Bible simply means not all things in entirety but this all things is defined-has a closure. man does not have dominion over what was created on the \(5^{\text {th }}\) day.
4) so if God created nothing on the \(5^{\text {th }}\) day then man has all compassing dominion over all things on the earth.
5) since 5 behaves like an even number eg 6 from goldbach existence proof . this means the supreme being which is represented by 5 - who also created man has some elements of jealousy with man. this further means this supreme being tends to behave or compare himself with a man. why does 5 not remain 5 why does it want to behave like another number-even.

\section*{SINCE ALL three slopes are 5 \\ ( three-dealing with three numbers (goldbach conjecture)}

Goldbach conjecture is below
\(5=2+3\) \(\qquad\) .(1)- most important property of the real number line (distinction). (sum of two primes \(=\) prime number not even). 2 is a number and 3 is a different number from \(2 .(5,3,2)\) are all distinct numbers . so no repetition of numbers in (1)
(1) Is not \(4=2+2\) (repetition of 2 ) or the other examples of goldbach conjecture.

This proves that goldbach conjecture is mere fallacy. it does not exist. it cannot be proven for the even positive integer in number theory because of the supremacy of 5 over the even domain. or one can say (1) is the validity of goldbach in the general view domain. this previous statement means by manipulating (1) one can obtain \(4=2+2\) which is the goldbach conjecture. this is achievable by subtracting 1 from both sides of (1) and the manipulation can only be done by an external agent.

\section*{EXAMPLES OF GOLDBACH CONJECTURE}
```

4=2+2
$6=3+3$
$8=3+5$
$10=5+5$
so (2), (3), (4), (5) etc does not exist in number theory in the general frame of refrence. or exists impossibly in the general frame of refrence.

## THEORETICAL REASON FOR THE PREVIOUS CONCLUSION OF NON EXISTENCE OF

## GOLDBACH CONJECTURE IN THE GENERAL FRAME OF REFERENCE.

this reason is called the WELLS NON REPETA CONJECTURE.
recall (2)
$4=2+2$
WELLS NON- REPETA CONJECTURE means no one number or integer repeats itself for more than once on the real number line eg there are five 1 's, three 3 's, four 5 's on the real number line is an invalid statement. there is only 1 one, one 3 , one 5 on the real number line. the same law applies to the non integers whether positive or negative.
so if $2+2=4$. this means the first 2 is from the real number line and the second 2 is a work of an external agent which uses imaginative logical arithmetic. so this external agent added the second 2. so this second 2 was not taken from the real number line. this external agent can be an human being, robot etc and it is this same external agent that drew the two curves in FIG 7. so external agent source is proven in the validity theory and invalidity theory of goldbach conjecture. this proves the fact that the general view is indeed a general view.

## If one says

$$
\begin{equation*}
4=2+2 . \tag{2}
\end{equation*}
$$

if (2) is valid then a mathematician will ask you, where did you get the second 2 ?. since there is only one 2 on the real number line?
if there is only one 2 on the real number line then, the probability of existence of two 2 's is 0 . so number theory cannot be used to account for the existence or operation of an event (goldbach conjecture ) whose probability of occurence is 0 in the general view.
external input of man etc.
picked from the real number line
so 4 is a sum of the number on the real number line and the external input number. the same applies to (3), (4), (5). general view works on probability.

## APPLICATION OF WELLS NON- REPETA CONJECTURE

since no number on the real number line repeats itself more than once. then this means the domain of any number on the real number line does not intersect the domain of another number on the real number line. so no one number can have more than one domain on the real number line.

## VENN DIAGRAM

U= universal set
A= subset of A
B = subset of $A$
$\mathrm{U}=(1,2,3,4,5,6,7)$
$\mathrm{A}=(1,2,3)$
$B=(2,4,5,6)$.

## VENN DIAGRAM 1

SET D=( $\mathrm{A}-\mathrm{ANB}=(1,3))$
SET E $=($ B- A NB $)=(4,5,6)$


## FIG 8-VENN DIAGRAM SHOWING THE INTERSECTION OF SET A AND SET B-IMAGINATIVE VIEW.

FIG8 shows an imaginative world-external input. this is also because "no two identical or the same numbers or things or events can exist at two different places simultaneously. so 2 cannot exist in A and simultaneously in B.
Fig8 has a loop of intersection. so there is 2 inside this intersection loop. this rectangle in FIG 8 is not closed. sorry i don't know how to draw with MS- word very well.

VENN DIAGRAM 2


## FIG 9-VENN DIAGRAM SHOWING NO INTERSECTION OF SET A AND SET B-REAL LIFE VIEW.

 so in the real world A AND B do not intersect.q: If asked to prove that no two numbers on the real number line repeat itself
Ans: This question is referring to the WELLS NON- REPETA CONJECTURE.

## THEORETICAL PHILOSOPHY 2

Goldbach means bag of gold. so a bag of gold is an inanimate object. so a bag of gold cannot speak. or one can say anything an inanimate object speaks is invalid. so goldbach is invalid in the general view. Andrew is the name of a person and fermat is also the name of a person. so their theories are valid in their respective frame of references.

## SECTION5

## PROVE THAT 10 IS A SOLITARY NUMBER

## CAGE THEORY OF SOLITARY NUMBERS

the change (eg 10) in the equation index of the real number line is called a solitary number. a thing is solitary if it exists in a confinement or caged. so it does not change over a long period of time because it has no way of interaction with other things. so we can have a solitary monk etc. a monk is expected to live in the sanctuary all the days of his life and not to marry till he dies. so if a number is termed solitary, then we say the number does not take external input to itself which will tend to change the solitary number by either increasing or decreasing it. secondly, the solitary number does not release parts of its value to be decreased in any way. or say, its releases parts of its value impossibly to be decreased. so a solitary number is confined and remains constant in value in a domain of reasoning of the real number line or in number theory. so from the validity prove of the Goldbach. the number in the semi curve is 10 . so 10 is a solitary number. so 10 does not change within each semicurve till infinity. so any number that hides or finds itself in the goldbach is called a solitary number. another conjecture model can give possibly the existence of another solitary number. note solitary 10 is observed in the three plots-prime, even, odd plot. this change in the equation index of the real number line is constant.

In classical physics. when an object eg (passenger-man) is in a car moving at a certain speed. All the physicist who ever lived will say because the object is in the car. so both the object and the car move with the same speed. so when the brake of the car is applied in danger then there will be a recoil of the passenger to show the law of inertia. however, Alexander says this discussed theory above is total nonsense and foolishness of thought and reasoning by these long departed physicists. so Alexander says when an object is in a moving car. that object (solitary) is as if caged so it does not move. it has zero velocity while the car is moving before the brakes are applied in danger. the only event or thing that moves is the car.
This leads to WELLS (two) postulates of motion. This states that;

1) it is impossible for a carried object or particle to travel at the same speed as the carrier
2) it is also impossible for this carried object or particle to travel faster than the carrier in any direction by leaving the carrier. In baby knowledge, the two laws means: a thing cannot travel at the same or greater speed as what carries it. such a system will exist impossibly. a passenger cannot jump out of a moving bus at a speed greater than that of the moving bus in any direction- this event can exists impossibly.

## Application of the WELLS postulate of motion

1) A super energetic baby missile can be impossibly launched from an energetic carrier missile. this is because the carrier missile must have energy more abundant than the baby missile to be launched.
2) A Satellite being lifted to orbit by a rocket can impossibly have more energy than the rocket.
3) High energy (like energies) particle only exists among itself. this is because high energy particles impact change in momentum or energy to only high energy particles that exists in its vicinity. so it is impossible for a creature like man to exist in the sun. this looks silly. this is what it means in baby knowledge. a man can be driven by a car simply because it can receive change in momentum from the car when its brake is applied - so one will call the car and man-like energies. it is impossible for unlike energies to exist together. this is because the energy lost by one can not be accommodated by the other.
4) man is looking for a material that can be used to build a rocket that can penetrate the sun. this is not the solution to entering the sun. man himself is not a like energy with the sun. so after getting this material that can withstand the temperature of the sun and the rocket is built and man drives it to enter the sun. the theory of like energy will kill all those-human beings in this sun rocket even though they are inside the rocket shielded from the heat of the sun. it seems mysterious it is not. it is physics. it is real. so this leads to say for a successful exploration into the sun. a material that can withstand the temperature of the sun is needed. secondly, any man that will enter this rocket must put on or wear a like energy material as the sun. however, I don't know what type of material this is. but it exists-if you can find it. so solitary numbers predicts that astronauts who travel to other planets eg Mars wear certain serious materials on their body.
this will keep them alive most importantly in the rocket and finally where they are heading to when they come out of their rockets or spaceship.

Q: prove that astronauts wear heavy materials in journey? the answer is- explain the physics of the passenger in a moving car- solitary number cage theory

## Continuation Of Example 1

so for any change in motion or behaviour that a particle or object or thing in a system shows. this change in behavior exhibited by the object originated or was impacted from the change in the major system behavior. so a system can be divided into two parts: a major system and minor system. eg, for a moving car having some passengers. the moving car is the major system while the passengers and all the other content of the car constitute the minor system. so the sum of the major and minor system constitute the system. so for a passenger that drifts backwards when the brake of moving car is suddenly applied. this means the passenger drifted because of the loss of momentum of the moving car(major system) which resulted in a backward increase of momentum in the passenger. so this creates an energy conservation. it is not a function of inertia or same speed effect.

## Example 2

When a caged lion is in a moving car. since it is caged. it means it is solitary. so the lion is not moving. so has zero velocity. this further means in a way that the lion did not move from its initial rest position - the position the lion was before its cage was put into the car that set for motion to the destination of the car. so the lion does not change in character in any way during motion while in the moving car. so when the car stops at the destination and you bring down the lion cage and another person tries putting his head into the cage of the lion if it has a wide opening. the lion will kill the person. this means the lion is saying - I am still a lion, I have not changed in any way. only the car has changed in its properties-wear and tear. check the tyres they are no longer brand new but my teeth is still brand new. so two caged lions are called solitary lions. so one is not a friend of the other. so each lion has no friend because each is caged. so no way of interaction. so a solitary number or solitary numbers are numbers that have no friends or termed friendless. They don't make friends because they are confined or caged.
so if a person finds himself in the wild forest due to any circumstance and he suddenly sights a lion that is not caged. the person will say "OH MY GOD THIS (ONE) LION WILL EAT ME". however, the study of solitary numbers says that since this sighted lion was not caged-so not solitary. then it means this sighted lion has so many friends that are lions whether males or females. the total number of friends for a sighted lion is nine. so for every one lion sighted
by a prey there is a total of nine lions also waiting to devour that prey. so seeing one lion means seeing ten (10) lions that will eventually eat the person-the prey. so the right statement from a person with the knowledge of solitary numbers is " OH MY GOD TEN (10) LIONS WILL EAT ME today". so UNCAGED ANIMALS HAVE FRIENDS-nine in number. it seems the writer has inverted something somewhere. No, this is not so. this is what the writer means- 10 caged 10 . this means 10 caged 1 . the second 10 is now 1 . looking at a lion in a cage (zoo) means looking at yourself (dead) caged by that lion. this is because the cage you are seeing may be broken somewhere. a person with knowledge will understand what this means. it can not be further stretched. however, in a nutshell, anything that behaves solitary is deceitful. it takes discovery channels to know this idea of group feeding on preys by wild animals. it is inherent in solitary number study in number theory. Also, since the behavior of a solitary number does not change-constant within the goldbach. this means the behavior of a solitary-caged animal does not change. this is why a constant difference of 10 is observed in the prime factor, even and odd number plot to infinity on any plot. this constant 10 also implies that a caged or solitary lion (animal) is ten times more vicious and deadly than a lion in the wild forest-free to move or a domestic lion.

## Query or a fault of Example2 by somebody

the writer said the caged lion in the moving car is not moving, so has zero velocity. Q : if the caged lion was initially at POINT A and the moving car later drove it to POINT B. didn't the lion move? since there is a distance between POINTA AND POINTB and this distance is not zero.
this person also released these two sentences below about example 2 and concluded that they meant the same thing in physics.

1) The lion moved from point $A$ to point $B$
2) The lion was transported from point A to point B .

## Alexander's answer

the two sentences above (1) and (2) seems the same in reasoning but they are not. says the writer-Alexander in deep reasoning. they are two different expressions entirely.

1) the lion moved from point $A$ to point $B$-means the lion is something. it has a locomotive part-eg legs. so it used this locomotive part to move from Point A to Point B. here the lion expends its internal energy and becomes weaker in this transit from point A to point B. 1) is a lie on the lion in example 2. so how did the lion move?. did it move itself or was it conveyed? anything that moves by locomotion is not solitary-so not caged and not conveyed.
2) the lion was transported from point $A$ to point $B$. means the lion as an animal was conveyed by another mechanism of transportation. so here the lion does not expend its internal energy. so its internal energy is constant. example 2 is discussing this point-the lion is transported. here again the lion is solitary caged.
so from the above explanation 1) and 2) are not the same. so when an animal is conveyed. it means the animal is not moving-or changing its attributes. so has zero velocity. the explanations are so because physics is a science of truth.

## Why is physics a science of truth

simple: a beautiful lady received a dirty slap on her right cheek and a vector analyst stooped down at her right leg to take measurement of the magnitude of the vectorial force that hit her right cheek. this vector analyst is not a physicist. the event took place on her right cheek. so measurement must begin on either her right or left cheek. it must take place in the vicinity of the event.-truth.

## what is the origin of solitary numbers

The partial or total collapse of the even domain of the numbers on the real number line gave birth to solitary numbers. so solitary numbers have just one origin-collapse this collapse has been explained above. the 10 was first noticed as significant in the prime number table (10\&2). 10 and 2 are both even numbers. it is said that this domain is collapsed. this therefore tells us as matter of fact that $90 \%$ of all solitary numbers are even numbers. the rest are numbers having 5-by virtue of wanting to behave like an even number etc. and some others are supreme numbers eg 1,2,3,4.

## CONCLUSION

1) The research proves that Andy beal conjecture is the same as the fermats conjecture equation in the boundary of the fermat last theorem.
2) The research proves that Andy beal's conjecture is absolutely valid any day any time in any generation and forever. Also the Andy beals conjecture can only be proven absolutely valid in all reasoning by using a powerful supercomputer program in the $(0.5,0.5,0.5,0.5)$ tetra set.
3) The research also shows that truly Andy Beals was using computers to look at similar equations with different exponents and most importantly his computer was initially solving binary algorithms- two input simultaneous input
programming (TISIP) and later it started synchronous 4-input programming until it discovered the common prime factor solution to his conjecture.
"Andy Beal had been working on Fermat's Last Theorem when he stumbled upon a different problem. At the time, he was using computers to look at similar equations with different exponents.
4) The research proves the Wells summation conjecture valid forever.
5) The research proves the Fermats conjecture equation valid forever.
6) The research proves the Goldbach conjecture valid forever.
7) The research proves the existence of solitary numbers and 10 an example. with the others being most of the even numbers on the real number line while the rest are supreme numbers in their mixed digits.

## REFRENCES

| www.google.com- | FERMAT'S LAST THEOREM |
| :--- | :--- |
| www.google.com- | GOLDBACH CONJECTURE |
| www.google.com- | SOLITARY NUMBERS |

## AUTHOR'S PROFILE <br> ALEXANDERS PROFILE

## NAME- ALEXANDER O. WELLS

INSTITUTION: UNIVERSITY OF LAGOS AKOKA YABA LAGOS NIGERIA
DEPARTMENT: APPLIED PHYSICS (GEOPHYSICS)
MATRIC : 060808060
LEVEL-FINAL YEAR 400L (2 ${ }^{\text {ND }}$ SEMESTER)-undergraduate
Email- alexanderowells@yahoo.com
PHONE NO: +2347087816278
PRIMARY SCHOOL PROFILE
PRY 1 - OJUWOYE PUBLIC SCHOOL DAMINGORO MUSHIN LAGOS NIGERIA
PRY 1-4 - GLADYS NURSERY AND PRIMARY SCHOOL DEMURIN KETU LAGOS NIGERIA (private)

PRIMARY SCHOOL AWARD
Best student in the Federal Common Entrance 1996 (Gladys)- 419/600 in pry 4.

## SECONDARY SCHOOL PROFILE

JSS1-JSS 3- LAGOS BAPTIST ACADEMY OBANIKORO LAGOS NIGERIA
SS1-SS3- MAYFLOWER SCHOOL IKENNE OGUN STATE NIGERIA
STUDENT NUMBER -14574
PREFECT POSITIONS IN MAYFLOWER

1) SANITARY PREFECT BOY 2003 SET
2) JUNIOR -ENGINEERS- TECHNICIANS AND SCIENTISTS PREFECT -2003 SET MAYFLOWER SCHOOL AWARD

BEST FURTHER MATHEMATICS STUDENT (WASSCE) MAYLOWER SCHOOL IKENNE 2003 SET.

