ABC Solution

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1. Note, * means multiplication,
   ^ means power, / means division.

[Rad(ABC)]^(1+s) / C = (xyz)^(1+s) / C.
s>0. .... (1) A, B and C are integers > 0.
RadA = x.
RadB = y. (A,B) = 1, so (x,y) = 1.
Rad ABC = xyz. z is from C = A + B = wz.

2. We get (x,y) = 1 , (xy,z) = 1, (xy, w) = 1, (xy, zw) = 1. .... (2)

From the function point of view, xy and zw are " 2 independent functions", never have any intersections each other after Rad process of ABC.

In other words, the same meaning is , if xy is a variable, zw can be treated as a constant, vice versa, when they have some mathematical relations, for example, integration or differentiation.

This is "the first key point" of our way !

3.Suppose (xyz)^(1+s) / c = xy (xyz)^s / w > or = a > 0.
'a' is a constant. .... (3)
Of course, we can get s = s (d xy / d xy) = s*1 = s.
* means multiplication,
here 'd' means differentiation.
And look xy as a variable, then of course, z and w become two constants.

This is " the second key point " of our way.

4. After 'log' the two sides of (3), we get the differential equation:

log (xy) / w + s log xyz (d xy / d xy) > or = log a

This is " the third key point " of our way.

Then, to do the integration on the both sides at the same time to solve the equation.

Note, others are constants except the variable xy, and note

the integration logxy dxy = xy logxy - xy log e = log [(xy / e)^xy].

5. After the calculation, the calculation is very simple, we get

(xyz)^(1+s) / C* e^(1+s) > or = a >0 ....(5)

note, there is a constant T during the integration, just make

T = 0, because T has nothing to do with the variable xy

and others.

of course (xyz)^(1+s) / C > (xyz)^(1+s) / C e^(1+s) > or = a > 0. ....(5')

then we can use (xyz)^(1+s) / C e^(1+s) to do the above

integration again, get (xyz)^(1+s) / C [e^(1+s)]^2.

6. Actually we can repeat the integration process again and

again, to approach 'a' > 0, then we get

[Rad ABC]^(1+s) /C > .... > ......
 > (xyz)^(1+s) / C [e^(1+s)]^q   > or = a >0.   ....(6).

q is a natural number, shows the repeating times.
q should have a limitation.

If q has no limitation, the 'a' in the above (6) will reach 0, this contradicts what we have already known, since the ABC was born.   Here 'a' should be >0.

7. At the same time we know the ABC problem can be expressed as follows:

Suppose we can get the smallest (xyz)^(1+s)/C,
we also can make it > 1/ [e^(1+s)]^k > 0,
k is a finite integer >0.

[Rad(ABC)]^(1+s) / C   >   1/ [e^(1+s)]^k > 0.
k is a finite integer > 0 .

ABC Theorem Lkx.

[Rad (ABC)]^(1+s) / C   >   1/ [e^(1+s)]^k   > 0.
k is a finite integer > 0.

A, B and C are integers > 0.
(A,B) = 1, C = A + B, s > 0,   e = 2.718...... Euler.

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About "Good abc example" :

Accoding to my theory above mentioned,
[Rad ABC]^(1+s) / C > 1/ e^ k(1+s), k is a finite integer > 0.

We can look it as the extreme of ABC,
1/ e^ k(1+s) = [e^(1+s)k] / [e^ 2(1+s)k],
then 'log' the above and the below of the fraction,
we get log C / log [Rad ABC] < 2.

Yes, using my way, you can also get
2 > 3/2 > 4/3 > 5/4 > ...... ,
no doubt, the biggest one is 2.

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ABC Theorem Lkx
'good abc ratio' is

Log(C) / Log [Rad ABC] < 2.

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