

Beal Disproof Thirteen Times with Geometric Disproof Five Times with Line Bending into an Arc as Two Disproof or Stretched from 16 to 17 Once as One Disproof with Ramanujan's Taxi Cab Number as Last Disproof or Counterexample

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Abstract: Here we show Beal conjecture shown false thirteen times focusing on a line segments as the key disproof a line can be compressed into an arc of shorter length connecting two non-prime or composite numbers or stretched from 16 into 17. I also site Ramanujan's taxi cab number as counterexample 13

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I. INTRODUCTION

I was in Calculus for physicists with Charles Nissim Sabbat. I read Mathematics for the Million where Hogben's book was not even suggested reading or required. [1] I just use to do much outside reading in school in the past. I read about Ramanujan in 2013 on a website as I used to go through Mathematics journals to solve problems they asked. I did this as a job as I could no other job even though I tried except NASA contractor, rat or guinea pig for University of Chicago, and utility clerk for Dominick's and selling for an insurance broker. I got told to go forward on one of dozens of applications for NASA. I did not follow up on the NASA contract as it was leading nowhere. University of Chicago did things electrocute me an studied my brain waves which I did not want to do. Cook County told me not to visit or take my mom home violating Olmstead V. LC.

The work with NASA was dropped as It was not going anywhere. I provided a solution to every Clay Math

problem which did not get prizes sadly. Clay Mathematics did not reply much.

I used to read mathematics books like Mathematics for the Million as a supplement to my academic work. I stopped as the reading led nowhere. I once read about the famous Indian mathematician who most all respect still called Srinivas Ramanujan as I accessed on 4/28/2026 to remind me of his name and spelling.[2] he had a logbook of math problems. I read a website in 2013, I do know which website I worked with about Ramanujan. [3] He made the same argument as my last example. He was invited by a British mathematician to go to Britain. The mathematician's name was Hardy. His name was Srinivas Ramanujan. I did not cite him in the 2013 article when I started on this problem. The article unpublished just says if raised to infinity there are no common determinable factors if. The 2013 article says raised integers to figures like elephants show there is no determinable prime factor. I was in Eckhart Library, the mathematics library at University of Chicago. I am a graduate or alumni who took Calculus I and II at

University of Chicago. I took and reviewed Multidimensional Calculus at LSU by correspondence. I took Calculus for Physicists at NEIU. I also took Integral calculus at Truman College.

I provided 3 disproofs already published.

II. DISCUSSION

This is a discussion of number raised to integers. 13 examples show there do not need to be common factors when integers are raised to exponents. Various examples follow.

We show Beal conjecture false thirteen times

➤ Example 1

$$3^5 + (2^3 + 5(1^3)) = 4^4$$

$$243 + (8 + 5) = 256$$

$$243 + 13 = 256$$

3, 2, 1, 4 are not common prime factors

➤ Example 2

$$\text{Cube root of } 3^6 = 1^3 + 2^3$$

$$729 \text{ cube root is } 9 = 1 + 8$$

$$9 = 1 + 8 (1)$$

➤ Conclusion

No common prime factors are needed as 1 is a common number not prime.

➤ Example 3

$$5^3 + \text{Triangle with 3 sides}^3 = 2^7$$

Triangles can't be raised to a power so plus three

3, 2, and 5 do not have common prime factors

➤ Example 4

$$3^3 + \text{Pentagon}^3 = 2^5$$

27 + pentagon can't be raised to a power number of times so plus 5 = 2^5

There is no common prime factor. 3, 2, and pentagon or 5 do not have common prime factors

➤ Example 5

$$1^3 + \text{Heptagon}^3 = 2^3$$

1 + heptagon has 7 sides so cannot be raised to a power to plus 7=8

$$1 + 7 = 8$$

Heptagon ^3 does not really mean anything

➤ Example 6

$$2^3 + \text{octagon} = 2^4$$

$$8 + \text{octagon} = 16$$

Octagon has 8 sides and cannot itself be raised to a functioning exponent.

Octagon^3 does not really mean anything except 8 but the number of sides is not significantly raised to the third

$$2^3 + \text{octagon}^3 = 2^4$$

➤ Example 7

$$1^3 + i^6 = 0$$

$$1 + -1 = 0$$

➤ Example 8

$$3^3 + 1^3 + 2^5$$

$$27 + 1 = 32$$

A unit size could be defined as 5 units long to show 3, 2, 1 as not common prime factors as 1 is not composite or prime

➤ Example 9

$$5^3 + 1^3 = 2^7$$

A unit could be defined as 3 units, so Beal is false as 1, 5, 2 are common prime factors.

➤ Example 10

An arc can be used to compress a line segment. 8 can be bent into a line segment connecting linking 27 and 32

$$3^3 + 2^3 = 2^5$$

8 can be curved to combine 27 and 32. The line of 8 can be bent into 5 to show the two numbers equal.

➤ Example 10

$$3^6 (1^3) + 3^6 i^6 = 0$$

$$729 + -729 + 0$$

$$729 + -729 + 0$$

➤ *Example 11*

An Arc of length 8 can be compressed into a length of 3.

$$5^3 + 2^3 = 2^7$$

The line of length can be compressed into 3 showing Beal conjecture false.

$$125 + 8 = 128$$

➤ *Example 12*

A line can be stretched from 16 into 17 to show Beal conjecture false

$$4^3 + 2^4 = 3^4$$

$$64 + 16 = 81$$

The 16 can be stretch into 17 reaching 81 from 61.

➤ *Example 13*

$$12^3 + 1^3 = 9^3 + 10^3$$

$$1728 + 1 = 729 + 1000$$

1 is a composite number not prime. 729 and 1000 do not have a common prime factor.

$$1729 = 1729 (4)$$

III. CONCLUSION

This last example is known as the Hardy Ramanujan taxi cab number as Ramanujan saw a taxi cab with this number when he visited London on the request of Mathematician or a person named Hardy. Two cubes are added and there is not a common prime factor. Same as the other examples.

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