International Journal of Science and Research (IJSR)
ISSN: 2319-7064
SJIF (2022): 7.942

The Ultimate Proof of Collatz Conzecture With Simple Number Theory

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Abstract: ***Collatz conzecture a theorem that can be understood not only Mathematician but a standard one student who does know only some operations like summation, multiplication and division. But it can't be proved by abstractly many decades. In this paper I'm going to represent this millennium proof with single number theory that can be understood everybody And I'm 100% sure it is an unique Proof and the simplest proof like the simplest problem . This proof is less that 1 page!!***

Keywords: Collatz Conzecture Number theory

1. Introduction

Problem Statement
You will be tempted. This problem is simply stated, easily understood, and all too inviting. Just pick a number, any number: If the number is even, cut it in half; if it's odd, triple it and add 1. Take that new number and repeat the process, again and again. If you keep this up, you'll eventually get stuck in a loop. At least, that's what we think will happen.

Take 10 for example: 10 is even, so we cut it in half to get 5. Since 5 is odd, we triple it and add 1. Now we have 16, which is even, so we halve it to get 8, then halve that to get 4, then halve it again to get 2, and once more to get 1. Since 1 is odd, we triple it and add 1. Now we're back at 4, and we know where this goes: 4 goes to 2 which goes to 1 which goes to 4, and so on. We're stuck in a loop.

2. Proof

Consider all set of all natural numbers that is only the set of odd numbers.

By mathematically - the set is
{1,3,5,7,9,11,,13,15,17,19,21,----------)

Now buy Collatz Conjecture if the number is odd then the formula is 3x+1. Since it is the set of all odd series x must be the odd number. And 3*x is also the odd number. If it is odd then 3x+1 is even.

Because odd+odd=even!!!. And if it is even then 3x+1=2^k , where k belongs to { 1,2,3,4,5,6,7,8,9---)

Because every even number can been written by 2^k format.

And now see the magic if 2^k is even then from the collatz conjecture it must be divided by 2 , then it is again even and we again divide this by 2 and repeat same iterations !! Finally it has to come in 1!! No one can defend him to reach one!!!! Then consider again the set only belongs to even natural numbers. Now it can also be written in the form of 2^k. Then it again divide by and again --- It become again 1 !!!!!!!! Here is the prove finished.

3. Last Comment

Wondering!! Thinking Why do the genuine mathematicians can't solve it for many decades. I think it hits their ego, they said It is only for a game to children. They will play it, We don't Now I deserve Nobel prize!!!!!!

References

[1] Grade:1 text book of my younger btother Abrar Ali Tusho