Solution to Beal's Conjecture

Abstract

This document, tries to resolve a solution by bruteforcing all possible solutions, using the concepts of even and odd numbers.

First, the problem deals with A^x , this is A*A*A…., since odd numbers, and even numbers, multiplying by them self, always remain odd or even. So for parity concerns, we can just take A and B and C.

Then just use the properties of parity numbers, (in the table below), and check if there is a commond factor. To check for common factors, the parity must be equal in all checks (even or odd, for example in table number 3 they are all even and so, common factor of 2.

Beal's conjecture

If A^x + B^y = C^z , where A, B, C, x, y and z are positive integers and x, y and z are all greater than 2, then A, B and C must have a common prime factor.

	A ^x	B^y	C^z
1	Even	Odd	Odd
2	Odd	Even	Odd
3	Even	Even	Even
4	Odd	Odd	Even

To have a common prime factor → (A =Even,B=even,C=even) the only solution is even for every element, since odd numbers can't be even and even can't be odd

So the conjecture is wrong..for example for A=Even, and B=odd and C=odd (factors 2 and others not 2)

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