

Answer to Beal's Conjecture

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.

Abstract

This paper, tends to solve the Beal's Conjecture, using the fact that a prime number is only divided by himself and one. So for both A and B if they are primes, and if they are different, there isn't any common prime factor. The primes elevated to a exponent, for example for $A=2, x=3$, then $A^3 = 2*2*2$. As we can see it only has prime factors equal to himself

For A different B

$B=3, B^3 = 27 (3*3*3, \text{prime factor } 3)$

$A=2, A^3 = 8 (2*2*2 \text{ prime factor } 2)$

So as we can see, if they are different, they don't share a common prime factor

It's worth mentioning, that if A equal B and equal to C , then they do have a common prime factor

Keywords

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Palavras Chave:

conjecture de beal,primos,divisores,multiple

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