



Beal conjecture disproved as no common prime factors in 3 Counterexample

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INTRODUCTION

There are no common prime factors in our counterexample so Beal conjecture is shown false.

DISCUSSION

Example 1

$$64 + 16 + 1 = 81$$

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

No common prime factors so Beal conjecture is false and disproved

Example 2

$$3^3 + 10^2 + 1^3 = 2^7$$

Example 2 shows there are no common prime factors.

Example 3 shows the common factors can be composite rather than prime numbers

$$10^3 + 12^3 + 2^4 = 14^3$$

$$1000 + 1728 + 16 = 2744$$

The common prime factor can be composite and not prime so Beal conjecture can be disproved.

CONCLUSION

Beal conjecture can be shown false by Counterexample showing prime factors are not needed.