The Prime Conjecture

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ABSTRACT: In this article, I will demonstrate a conjecture for primes which can be found out with the help of any integers.

KEYWORDS: Integers, Primes & Conjecture.

I. INTRODUCTION

In mathematics, we have two types of numbers namely, prime numbers and composite numbers. In this article, I will state the relation between an integer and its corresponding prime which will be unique for any unique value of integer.

II. IDENTATIONS AND EQUATIONS

Let X be an integer. There exists another integer Y such that,

\[ Y = X + 1 \]  \hspace{1cm} \text{..(1)}

Then, the prime conjecture states that:

\[ X^3 + Y^2 = P \]

Where,

X is an integer,
Y = X + 1
and P is prime.

III. Conclusion

If ‘X’ is an integer, then there exists a unique number ‘P’ such that:

\[ X^3 + Y^2 = P. \]

Therefore, substituting the values of equation (1) in the above equation, we get,

\[ X^3 + (X + 1)^2 = P \]

\[ X^3 + X^2 + 2X + 1 = P. \]

Therefore, the equation:

\[ X^3 + X^2 + 2X + 1 = P. \]

is known as “The prime conjecture polynomial”. Hence, for any value of P, there exists a unique integer value of X.

NOTE: This conjecture is not valid for any integer X which unit digit is 6.

REFERENCES

There are no references used in this article. It is my own personal work.