ABSTRACT

FACTORIAL ANALYSIS APPROACHING PRIMA AND PRIMORIAL APPROACHING PRIMA

by

Dimiantika

An integer with $p > 1$ is said to be prime if and only if its positive divisors are 1 and p. Prime numbers can be obtained through factorial and primorial approaches. If a prime number is $p > n! + 1$, then $p > n! + n$ is also prime. In addition, if the prime number p satisfies $n! + 1 < p < n! + r^2$ then $p - n!$ also a prime where r is the smallest prime number such that $r > n$. Furthermore, if the prime p satisfies $n! - s^2 < p < n! - 1$ then $n! - p$ is also a prime with $n > 2$ and s is the largest prime number so that $s < n$. If prime p satisfies $q\# + 1 < p < q\# + r^2$ then $p - q\#$ is also prime with $q < r$ being consecutive prime numbers.

Key Words: *Prime numbers, Factorial, Primorial*

ABSTRAK

ANALISIS FAKTORIAL MENDEKATI PRIMA DAN PRIMORIAL MENDEKATI PRIMA

oleh

Dimiantika

Suatu bilangan bulat dengan $p > 1$ dikatakan prima jika dan hanya jika pembagi positifnya adalah 1 dan p. Bilangan prima dapat diperoleh melalui pendekatan faktorial dan primorial. Jika bilangan prima $p > n! + 1$, maka $p > n! + n$ juga prima. Selain itu, jika bilangan prima p memenuhi $n! + 1 < p < n! + r^2$ maka $p - n!$ juga prima dengan r adalah bilangan prima terkecil sehingga $r > n$. Selanjutnya, jika prima p memenuhi $n! - s^2 < p < n! - 1$ maka $n! - p$ juga prima dengan $n > 2$ dan s adalah bilangan prima terbesar sehingga $s < n$. Jika prima p memenuhi $q\# + 1 < p < q\# + r^2$ maka $p - q\#$ juga prima dengan $q < r$ adalah bilangan prima berurutan.

Kata Kunci: Bilangan prima, Faktorial, Primorial