

## REFERENCE

1. L. Carlitz, "Zero-One Sequences and Fibonacci Numbers of Higher Order," *The Fibonacci Quarterly*, Vol. 12 (1974), pp. 1-10.

★★★★★

## THE UNIFIED NUMBER IDENTITY

GUY A. R. GUILLOT  
Montreal, Quebec, Canada

The identity illustrated below shows a relation connecting all of the most important constants and numbers in mathematics.

$$e^{i\pi} \left( 2\beta + \sum_{n=0}^{\infty} (-1)^n (\sqrt{5} F_{n+1} - L_{n+1}) \right) + \alpha \sum_{n=0}^{\infty} \frac{(-1)^n E_{2n} \sum_{k=1}^{\infty} (1/k)^{2n}}{B_n (10)^{2n}} + 1 = 0.$$

In the usual notation the above identity has the following constants and numbers:

## CONSTANTS

$$0, 1, -1, 2, \sqrt{5}, i = \sqrt{-1}, e, \pi, \alpha = \frac{1+\sqrt{5}}{2}, \beta = \frac{1-\sqrt{5}}{2}, 10.$$

## NUMBERS

Notation	Explanation
$n$	$n = 0, 1, \dots$ denotes zero and the set of positive integers.
$1/k$	$k = 1, 2, \dots$ is the collection of fractions of the form $1/k$ .
$F_{n+1}$	$n = 0, 1, \dots$ denotes the $(n+1)^{th}$ Fibonacci number.
$L_{n+1}$	$n = 0, 1, \dots$ " " " Lucas number.
$B_n$	$n = 0, 1, \dots$ " " $n^{th}$ Bernoulli number.
$E_{2n}$	$n = 0, 1, \dots$ " " $2n^{th}$ even Euler number.

The author of this note wishes to point out that since the letter  $n$  denotes zero and the set of positive integers, then it must denote most of the conceivable numbers defined by mathematicians so far. Let us name some of these numbers. Prime, Fermat, Guy Moebius, Perfect, Pythagorean, Random, Triangular, Amicable, Automorphic, Palindromic, and the list goes on and on ...

★★★★★