

# Re: Summation, modulo and decimal

---

*Source:* <http://sci.tech--archive.net/Archive/sci.math/2006-01/msg03667.html>

---

- *From:* [magidin@xxxxxxxxxxxxxxxxxxxx](mailto:magidin@xxxxxxxxxxxxxxxxxxxx) (Arturo Magidin)
  - *Date:* Mon, 23 Jan 2006 21:43:05 +0000 (UTC)
- 

In article <1138051905.570033.233690@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>, <spin9@xxxxxxxxxxxx> wrote:

>Hello.

>

>I'm trying to use the modulo (modulus, mod, %) to do the following:

>

>(1) 0,147536 -> (2) 0.101110

>

>The problem is that modulo is only def. to Integers.

Indeed. What is it you expect the answer to be? Are you looking for the unique real number  $m$  such that

$$0.147536 = p \cdot 0.101110 + m$$

such that  $p$  is an integer and  $0 \leq m < 0.101110$  ?

> So, I used the

>sigma/summation to shift the decimal point to the left (multiply by

> $10^k$ ) to get each digit. It not worked because before it shift the

>digit to the left the number is added to the previous value, so, I used

> in the formula another "trick"  $(-1)^k$ , so the number stay the same

>after  $k$  even increments. When I try to use it all together the  $(-1)^k$

>and the  $10^k$  "cancel each other" and I get the same initial value.

>What=B4s wrong with my logic?

Yikes. What is it you are doing, explicitly?

The easiest way to do what you want, if what I think you want is indeed what you want, is to simply multiply both numbers by  $10^6$ , do the modulus, and then divide the result by  $10^6$ . That is, do  $147536 \bmod 101110$ , which is 46426; then divide the result by  $10^6$  to get 0.046426

>How can I use the Sum and Mod to turn each number to 1=B4s and 0=B4s >giving a number, say, 3,14231243545546 ?

Huh?

--

=====  
"It's not denial. I'm just very selective about  
what I accept as reality."

--- Calvin ("Calvin and Hobbes")  
=====

Arturo Magidin  
magidin@xxxxxxxxxxxxxxxxxxxx

- 
- *Follow-Ups:*
    - ◆ *Re: Summation, modulo and decimal*  
◇ *From:* B. Spin
  
  - *References:*
    - ◆ *Summation, modulo and decimal*  
◇ *From:* spin9
  
  - Prev by Date: *Summation, modulo and decimal*
  - Next by Date: *Re: Cantorian pseudomathematics*
  - Previous by thread: *Summation, modulo and decimal*
  - Next by thread: *Re: Summation, modulo and decimal*
  - Index(es):
    - ◆ *Date*
    - ◆ *Thread*