

A new number system - A number "circle"

Shamith Louis Saldanha

Started October 2019

1 Copyright & Guarantee

It is in private domain, and scheduled for public domain.

You must attribute this work to me. As long as you attribute this work to me:

You have the right to read and use; for any purpose limited to - personal, commercial/profit, government, academic/research; without restriction on number of times of use.

I reserve rights to reproduction through any means - mechanical, electrical, digital and future methods.

I assume no responsibility for any harm caused. No warranty or guarantees provided. This is only for knowledge.

2 About

To oppose the tyranny of number lines.

The concept of infinite number lines cause problems in geometry, digital systems and other bounded stuff.

I propose a number circle as opposed to a number line.

This is a personal work out of inspiration from a crazy place. This is for disseminating knowledge and hence this work is scheduled to be in the public domain for the free spread of knowledge among the human race

3 Motivation and Inspiration

From how planes fly and headings.

Hence limit the numbers and number system.

Visually: Change number line to a number circle. All operations only result in this number circle. This last part is not an absolute, but predominant assumption.

4 Explanation by simple example

Imagine a number circle with only 2 values = 0 and 1 = much like a 1-bit digital system.

some explanation

Let us add a few more values - let us call them A, B, C, D - no reference to hexadecimal nos.

Let us define some operations like add - there is no concept of overflow

ADD: defined as moving along the circle in a particular direction (say CW) by a certain amount. The "motion" is jumping in steps

SUBTRACT: defined as moving the other way as in adding but doing the same thing otherwise

MULTIPLE/DIVIDE: defined as scaling one's position in the number circle

Note: we may also need to come up with new operations to take full use of the number circle, but which is different from, or does not apply to the number line. Things may go the other way as well.

5 Formal Definition - may skip