

Re: Why not a self-able NIL ?

Source: <http://coding.derkeiler.com/Archive/Lisp/comp.lang.lisp/2008-10/msg00112.html>

- *From:* "josephoswald+gg@xxxxxxxx" <josephoswald@xxxxxxxx>
 - *Date:* Thu, 2 Oct 2008 14:39:54 -0700 (PDT)
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On Oct 2, 2:07 am, kodi...@xxxxxxxxxxxx wrote:

Matthias Buelow wrote:

The primary purpose of the DATA statement is to give names to constants; instead of referring to PI as 3.141592653589797, at every appearance, the variable PI can be given that value with a DATA statement, and used instead of the longer form of the constant. This also simplifies modifying the program, should the value of PI change."

Granted, it's only bad wording but still funny. :)

It is not bad wording and it is not funny. The value of PI can change. Just suppose you want to repeat calculations for a non-euclidean space.

You seem to have the same confusion about pi that you had about NIL.

Pi is the name for a particular number. It is independent of geometry, physics, coordinate system, or anything but the most basic assumptions about logic.

What can change is, for instance, the ratio of circumference to diameter of a "circle" or the sum of angles inside a "triangle." In Euclidian space, $2*\pi*r$ and $\pi/2$ are the norm, and by changing the coordinate system, this is no longer true.

You can't change pi, you change the formulas for the geometric quantities, for instance that the angles of a triangle sum to $\pi + A/a^2$, instead of simply pi.

Otherwise, your probability and integration and all sorts of other libraries will start to give wrong answers, because you have changed the formula for a bell-curve and the residue of integrating around a pole, and all the other things that pi connects to.

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