Re: c = inverse(sqrt(epsilon nought *mu nought))

Source: http://coding.derkeiler.com/Archive/Fortran/comp.lang.fortran/2007−05/msg00632.html

- *From*: glen herrmannsfeldt <gah@xxxxxxxxxxxxxxx>
- *Date*: Mon, 21 May 2007 15:49:52 −0800

John Harper wrote:
(snip)

> I have another problem with Wade's terminology. c is a velocity, which happens to be a rational (for that matter an integer) number of metres per second, which Paul gave. c is NOT a rational number. Rational
> numbers are dimensionless. Remember the spacecraft that crashed on Mars because someone was careless with units...

I would agree with you, except that this is the Fortran newsgroup where variables do not have units. The quantity stored in the variable is the desired quantity divided by the appropriate units.

It seems to me that physicists and related scientists tend to consider variables as holding a quantity with units, while engineers tend to consider the units as part of the equation.

For the latter case, you might see in a book:

F(Newtons) = m (kilograms) * a (meters/second**2).

−− glen

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