

Re: How many main religious Festivities are there?

Source: <http://sci.tech-archive.net/Archive/sci.physics/2004-12/6949.html>

From: Tom Potter (*tdp_at_earthlink.net*)

Date: 12/18/04

Date: Sat, 18 Dec 2004 23:23:50 +0800

"N:dlzc D:aol T:com (dlzc)" <N: dlzc1 D:cox T:net@nospam.com> wrote in message news:5IXwd.1409\$ry.513@fed1read01...

> *Dear Tom Potter:*

>

> *"Tom Potter" <tdp@earthlink.net> wrote in message*

> *news:32itbbF3l5evaU1@individual.net...*

> ...

> > *As I demonstrate in my tutorial,*

> > *mass is expressed most fundamentally as a time.*

> >

> > *time(mass) = mass * G / C^3*

>

> *Too bad G is only known (or repeatable) to 6 or 7 sig figs. Doesn't seem*

> *very usable.*

"G" can be ANY number you like

as all it does is differentiate between

bodies perceived to be fixed in media (Time/space)

and bodies perceived to be varying in media.

Here is some of what my tutorial has to say on the subject,

including how to set up a mass standard

making "G" a defined constant, like "C".

=====

When Einstein indicated that the "equivalence" of inertial and gravitational forces was the cornerstone of General Relativity,

he was effectively restating Newton's observations about inertia forces

(force(B) = mass(B) * acceleration(B))

and gravitational forces (force(B) = mass(A) * mass(B) * G / distance^2)

These two different ways (Inertia and gravity) of looking at the same thing (An interaction) come about because of the weaknesses in man's two-body math. To simplify two-body problems, one body is perceived to be fixed in media (Time and space) and the second body is perceived to be varying in media. Gravitational forces are associated with bodies perceived to be fixed

sci.physics: Re: How many main religious Festivities are there?

in media, whereas inertia forces are associated with bodies perceived to be varying in media. For example, in the Sun/Earth two-body system, the Sun is perceived to be fixed in media (Time and space), and the Earth is perceived to be varying in media. Thus the Earth gets the 365.25 days (Time) and the 93,000,000 miles (Space), and the Sun gets the Universal Gravitational Constant "G" to balance the equation.

$$\text{mass}(\text{Sun}) * G = \text{distance}(\text{Earth})^3 / \text{time}(\text{Earth})^2$$

As interactions are symmetrical, and as the time period of a system is shared by both bodies,
the correct formula is:

$$\text{mass}(\text{Sun}) * G(\text{Sun}) = \text{distance}(\text{Earth})^3 / \text{time}(\text{common})^2$$

Note that if we perceive the Earth as varying in media and we assign it the distance, we must assign the Sun, which we are perceiving to be fixed in media, the "G". Also note that the time period of a system is shared by both bodies. One of the great omissions of contemporary physics is not specifying the particular bodies to which constants and variables apply.

As explained in the tutorial section of this program, the Universal Gravitational Constant "G" serves two functions. First, it differentiates between bodies perceived to be fixed in media and bodies perceived to be varying in media (Bodies perceived to be fixed in media have the constant "G" associated with them.). Secondly, it sets the units of mass, after the constant "C" has set the units of space, and the selection of a clock has set the units of time. The best mass standard would be the mass of the celestial body (The Earth or the Sun?) with the most precise satellite orbital data (Periods and distances). The mass of the body would be set to some convenient value, and powers of ten would be used to scale the mass units to a comprehensible range (one to ten) for the problem under consideration.

As also explained in the tutorial, there are two distances, rather than one distance, involved in two-body interactions. The conventional practice of using one distance (As in the equations above) leads to errors, which must be compensated for by the introduction of a pseudo property called "reduced mass".

The fact of the matter is, that interactions between bodies are symmetrical, and the concepts of gravitational and inertial forces come about because of the presence (Gravitational forces) or absence (Inertia forces) of the constant "G" in various equations.

To make my point clear, let us compare the interaction between masses to the interaction between charges.

Let's express the charge equation as:

$$\text{force} = \text{charge}(\text{A}) * \text{charge}(\text{B}) * F / \text{distance}^2$$

And let us call "F" the universal "flubber" constant.

sci.physics: Re: How many main religious Festivities are there?

Can you imagine people talking about flubber waves, flubber forces, etc?
(Or for that matter permittivity waves, permittivity forces, etc.)

=====

--

Tom Potter <http://home.earthlink.net/~tdp>