

Re: The definition of weight

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From: Donald G. Shead (*dcshead_at_charter.net*)

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"Mark Nudelman" <markn@greenwoodsoftware.com> wrote in message news:<N_uAc.48970\$Hg2.41438@attbi_s04>...

> "Donald G. Shead" <dcshead@charter.net> wrote in message

> news:48402bae.0406171842.2ca7bdb9@posting.google.com...

> > Weight [w] does not, and cannot be

> > $w = mg$, because $m = w/g$:: Therefore

> > $w = [w/g]g$, and/or $w = [f/a]g$...

>

> I'm trying to understand what you can possibly mean by this. By simple

> algebra, $w=mg$ is equivalent to $m=w/g$. They mean exactly the same thing.

> How can you say that one is true and the other is not?

>

> --Mark

What are the terms in mass? Mass [m] is the ratio of force divided by the acceleration that it causes; which is equal to the ratio w/g ; where either one of these ratios – f/a or w/g – is a measure of the mass, and/or the quantity of matter in the mass: Mass is not an algebraic term in itself: The terms of mass [m] are f/a and w/g ; which can only be moved to the other side of an equation by using parentheses: As $[f/a]$, or as $[w/g]$; so that $m = [f/a] = [w/g]$.

So that for $m = [w/g]$, in order for w to be moved by itself; we first have to do the math within the parentheses; in order to get rid of them: That's one of the first rules of doing algebra:

So if $w = 32\#$, and $g = 32''/\text{sec}^2$; then the mass is $m = [32\#/(32''/\text{sec}^2)] = \text{ONE pound}/(\text{ONE foot}/\text{sec}^2)$; or ONE pound second²/foot; which is ONE slug!

Or we have the option: $w = [w/g]g = [m]g$

Parentheses are useful necessities in algebra: They define and delimit algebraic "terms"! You've got to know when, and where to use them!