

Re: "Linear"

Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2009-07/msg00265.html>

- *From:* glird <glird@xxxxxxx>
 - *Date:* Thu, 2 Jul 2009 15:31:58 -0700 (PDT)
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On Jul 1, 11:27 am, Uncle Ben <b...@xxxxxxxxxxxx> wrote:

On Jun 29, 1:17 pm, glird wrote:

<< As these mutually contradictory replies are beginning to show: Very few people, if any, understand the intricate details of the meanings of the calculus equations, even though they all know *how to* do them. What follows here is a summary of the q and a to here:
Is the following equation $x = jt$ a linear equation if $j = dx/dt$?
Ben: $x = jt$ is linear in t . It is also linear in j .
Dirk: If j is constant and x is a function of t , then the function $x(t)$ is called linear in t . >>

Dirk's Yes, "If j is constant" says No, if j is variable. That disagrees with Ben's " $x = jt$ is linear ... in j "!

<< What if $j = v$? >>

Ben said it is linear.
Dirk implicitly agreed with Ben.

<< What if $j = dv/dt = a$? >>

Ben unambiguously said Yes, it is linear. Dirk said it is linear IF a is held constant. Since a may be variable, their answers again disagree.

<< How does one obtain the slope of a given equation so as to know whether or not it is linear? >>

Dirk replied "Equations don't have slopes."
Ben's answer to a prior question was, " $x' = g(x - vt)$ is called 'linear' because a graph of x' vs either x or t with other variables constant is a STRAIGHT LINE!"
A straight line DOES have a slope; wherefore Dirk's reply does disagree with Ben's,

Re: "Linear"

< Actually, Dirk and Ben do not disagree at all. Dirk reminded you that it is assumed that dx/dt is held constant. Ben (moi) complimented you by assuming that you already knew that.>

I did, which is one of the reasons I posed those questions; to show that many _experts_ disagree on the answers.

< The graph of a function will show the degree of the expression if you plot the function versus the variable in question. >

Unless "the degree" is different than "the slope of the straight line"; you just emphasized the fact that your "a graph of x' vs either x or t with other variables constant is a STRAIGHT LINE" directly contradicts Dirk's "Equations don't have slopes."

glird

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