Re: Nearby stars−why do they start at 4LY?

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- *From*: "Peter Webb" <webbfamily@xxxxxxxxxxxxxxxxxxxxxxxxx>

- *Date*: Fri, 25 Jul 2008 22:39:33 +1000

"Androcles" <Headmaster@xxxxxxxxxxxxxxxx> wrote in message
news:vlOgk.26498$gU4.6266@xxxxxxxxxxxxxxx

> "John C. Polasek" <jpolasek@xxxxxxxxxx> wrote in message
> news:5b9784dng0s0hkgu94con8409ur7kiatqg@xxxxxxxxxx
> | Wiki et al show tables of the first 20 or 50 starsnearest the earth.
> | The distances for the first few are
> | .. .. .. 4.3 6.0 7.7 8.4 8.6 9.4 10.4 LY
> | 1.7 1.7 .7 .2 1.2 1 the differences
> | Why are there no stars from 0 to 4.3 LY? From the difference list
> | there should be at least 2 closer than 4.3.
> | These are probably the few that can be measured using the parallactic
> | effect. It just doesn't seem likely that such a void exists.
> | John Polasek
>
> Why are you a cretin? There should be at least 55 morons
> writing to sci.astro ahead of you and you the closest. The next
> poster is at least an hour away from you, it just doesn't seem
> likely that such a void exists.
> Look, imbecile, that's the way it IS, there is no "why" to it.

But there is a simple "why" to it.

The number of stars of stars less than x light year ways away is proportional to x^3, and the number between x and x+1 light years away is proportional to 3x^2. So the number close to the earth falls away with the square of the distance; its not a linear relationship; and the difference is most dramatic for small distances (x =1, 2, 3).

Look, imbecile, that is the way it IS, the "why" is a geometrical argument.

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