Re: Orlow cardinality question

Source: http://sci.tech−archive.net/Archive/sci.math/2005−06/msg03434.html

- *From*: Tony Orlow (aeo6) <aeo6@xxxxxxxxxxx>
- *Date*: Mon, 20 Jun 2005 13:24:56 −0400

Dik T. Winter said:
> In article <d8uvn4$ih1$1@xxxxxxxxxxxx> stephen@xxxxxxxxxx writes:
> > Tony Orlow (aeo6) <aeo6@xxxxxxxxxxx> wrote:
> ...
> > > >> How do you, TO, define "number of elements" of a set?
> > > >> It is not that we do not understand in general, it is that we do not
> > > >> know what your understanding about that phrase is.
> > >
> > > > How about the integral of the density over the domain? Does that satisfy
> > > > your need for mathematical definition?
> > >
> > Not even close. Consider the set of regular languages over the alphabet
> > {a,b}.
> > What is the "integral of the density over the domain" of this set?
>
> Much simpler. What is the "integral of the density over the domain" for
> the even numbers in the integers? The density is approximately 2 everywhere,
> the domain is the naturals, what is the integral?
>
The density is 1/2. The integral over that range is N/2. If the density
changes, rather than being constant, then we can still often get some non−zero
value here relative to N, by taking an integral sum over that range. This is
really just another way of using the inverse of the mapping function.
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Smiles,

Tony
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- ***Follow−Ups***:
  - ♦ ***Re: Orlow cardinality question***
    - ◊ *From:* Dik T. Winter
  - ♦ ***Re: Orlow cardinality question***
    - ◊ *From:* Virgil

- ***References***:
  - ♦ ***Re: Orlow cardinality question***

◊ *From:* Virgil
♦ ***Re: Orlow cardinality question***
◊ *From:* aeo6
♦ ***Re: Orlow cardinality question***
◊ *From:* stephen
♦ ***Re: Orlow cardinality question***
◊ *From:* Dik T. Winter