Re: Separation,Power and Countability.

Source: http://sci.tech−archive.net/Archive/sci.math/2007−06/msg03698.html

- *From*: zuhair <zaljohar@xxxxxxxxx>
- *Date*: Tue, 19 Jun 2007 22:25:52 −0700

On Jun 20, 12:15 am, MoeBlee <jazzm...@xxxxxxxxxxx> wrote:

> On Jun 19, 9:36 pm, zuhair <zaljo...@xxxxxxxxx> wrote:
>
> > On Jun 19, 11:05 pm, Keith Ramsay <kram...@xxxxxxx> wrote:
> >
> > > On Jun 19, 7:26 am, zuhair <zaljo...@xxxxxxxxx> wrote:
> > > |I asked for the proof of the following:
> > > |For any set d that is a member of Pw and is indefinable what
> > > is the
> > > |prove of d being equinumerous to w?
> >
> > > Meaning, I suppose, how can one prove that each
> > > undefinable subset A of w is equinumerous with w.
> >
> > > If A is finite, then A is definable as {n : n is
> > > a natural number and (n=a0 or n=a1 or ... or
> > > n=a_m)} for some a0,...,a_m.
> >
> > > If A is undefinable, then, A is infinite and each
> > > infinite subset of w is equinumerous with w. Let
> > > a0 be the least element of A, and inductively let
> > > a_{k+1} be the least element of A not among a1,...,
> > > a_k. Then a_i gives a 1−1 correspondence between
> > > A and w.

Keith Ramsay

This depends on choice.

No, it doesn't; think about it for a moment.

it doesn't for this particular example since w is well ordered, I
know. But I was talking about the bigger picture.

for example take PPw , and let d be a member of PPw
that is not a member of Pw and let d be indefinable
and uncountable.
Now what is the proof that Ef(f:Pw −> d)

of course I am speaking in a set theory without choice.

Zuhair

MoeBlee− Hide quoted text −

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