

# Re: game of life question

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- *From:* Robert Israel <[israel@xx](mailto:israel@xx)>
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Subluxian <[cbrown@xxxxxxxxxxxxxxxxxxxx](mailto:cbrown@xxxxxxxxxxxxxxxxxxxx)> writes:

On Jul 30, 6:58 am, Allan Adler <[a...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:a...@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)> wrote:

Let  $L$  denote the set of all points of the plane with integer coordinates and let  $P$  denote the set of all subsets of  $L$ . Conway's game of life determines a mapping  $T$  from  $P$  to itself. Call an element  $x$  of  $P$  timeless if there is a sequence  $x_0=x, x_1, x_2, \dots$  of elements of  $P$  such that, for every positive integer  $n$ , we have  $T(x(n)) = x(n-1)$ .

It seems that you are asking for those elements  $x$  in  $P$  such that  $T(x) = x$ . These are usually called "stable configurations".

No he isn't. He's asking for configurations that have a possible ancestry of infinite length.

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