Affirmative resolve of Conway's problem

T.Nakashima
E-mail address
tainakashima@mbr.nifty.com

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Conway's prioblem is that shuffle 1 to n number cards, and see top of the card(we represent m), and set reverse m cards. repeat this prosess, we reach 1.

Theorem 1.1. *Conway's problem is correct.*

proof. We use induction method. "The number of cards $n+1$. (Except the case $n+1$th card is $n+1$.) For top n cards, we use Conway's operation. We reach 1 or $n+1$." (We assume 1 or $n+1$ as k. k represent $n+1$th card.)
$n+1$th card is $n+1$ case. We calculate as 1 to n case.
$n+1$th card is not $n+1$ case. We use induction method. We reach 1 or $n+1$.
$n+1$ case's next step, we reach 1 to n case.
For all n, Conway's problem is correct. □