

1086-05-898

Yevgeniy Rudoy*, yrudoy@gmail.com. *An inductive approach to constructing Universal Cycles on $\begin{bmatrix} n \\ k \end{bmatrix}$.*

In this paper, we introduce a method of constructing Universal Cycles on sets by taking "sums" and "products" of smaller cycles. We demonstrate this new approach by proving that if there exist Universal Cycles on $\begin{bmatrix} 18 \\ 4 \end{bmatrix}$ and $\begin{bmatrix} 26 \\ 4 \end{bmatrix}$, there must exist a Universal Cycle on $\begin{bmatrix} n \\ 4 \end{bmatrix}$ for any integer $n \geq 18$ equivalent to 2 (mod 8). (Received September 15, 2012)