Yevgeniy Rudoy*, yrudoy@gmail.com. An inductive approach to constructing Universal Cycles on \([n \choose k]\).

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 \([18 \choose 4]\) and \([26 \choose 4]\), there must exist a Universal Cycle on \([n \choose 4]\) for any integer \(n \geq 18\) equivalent to 2 (mod 8). (Received September 15, 2012)