

1056-Z1-1279      **Tyler Clark\*** ([thomas.clark973@wku.edu](mailto:thomas.clark973@wku.edu)), 1906 College Heights Blvd. #31082, Bowling Green, KY 42101-1082, and **Tom Richmond** ([tom.richmond@wku.edu](mailto:tom.richmond@wku.edu)), 1906 College Heights Blvd. #11078, Bowling Green, KY 42101-1078. *Fibonacci Numbers and Collections of Mutually Disjoint Convex Subsets of a Totally Ordered Set.*

We present a combinatorial proof of an identity for the odd Fibonacci numbers  $F_{2n+1}$  by counting the number of collections of mutually disjoint convex subsets of a totally ordered set of  $n$  points. We discuss how the problem is motivated by counting certain topologies on finite sets, and relate it to Pascal's triangle. (Received September 21, 2009)