

1125-VP-647      **Steve Bacinski\*** (sbacinski@davenport.edu), Davenport University, ATTN: Steve Bacinski,  
Grand Rapids, MI 49508. *How to Win at Tenzi!*

We will work through a Markov chain analysis of the simple dice game Tenzi to find out the probability of winning in  $k$  rolls, the advantage of rolling a speed  $x$  faster than your opponent, and ultimately how to win at Tenzi. Along the way, we will discover a function with some interesting properties including predictable jumps at every rational number, and continuous at the irrationals. (Received September 08, 2016)