

1106-VX-1235

Maxwell Christopher Chomas* (chomasmc@jay.washjeff.edu), 60 South Lincoln St., Box 248, Washington, PA 15301, and **Roman Wong** and **Terrence Wong**. *Expected Portion filled by k -Tiles.*

In this paper, we examine the expected portion $E(n)$ in a $1 \times n$ array that will be filled if dominoes are randomly placed in succession. We derive the formula for $E(n)$ and prove that the ratio $\frac{E(n)}{n}$ tends to $1 - \frac{1}{e^2}$ when $n \rightarrow \infty$. We demonstrate a Java simulation of the experiment with various n and compare the experimental result with the theoretic one. We then extend the experiment to filling the array with k -tiles, $1 \leq k \leq n$, and illustrate the behavior of the function $\frac{E(n,k)}{n}$. (Received September 14, 2014)