

Math 335.01

Weekly Problems #4 (Due Friday, October 3, 2008)

A. For weekly problem #3, you ran an R simulation to compute the distribution of first positive digit when selecting from a continuous random variable that is uniform on the interval $0 \leq x \leq 432$.

Let A_i be the event that the first positive digit is i , $i = 1, 2, 3, \dots, 9$. Find $P(A_i)$, for all i .

B. Suppose sandwiches at the Spencer Grill are wrapped in papers that contain one coupon with each sandwich. There are five different coupons and you must collect all 5 to win a five dollar gift certificate for some future purchase at the Grill. On average, how many sandwiches will one have to purchase to make a complete set of coupons? Use an R simulation to answer the question.