

**MATH 113: DISCRETE STRUCTURES
HOMEWORK DUE MONDAY WEEK 11**

Problem 1. What is the expected value of the number of digits equal to 3 in a 4-digit positive integer?

Problem 2. Let π be a permutation of \underline{n} . The index i is called an *excedance* of π if $\pi(i) > i$. How many excedances does the average permutation of \underline{n} have?