Combinatorial Analysis 21-301: Fall 2003
Homework.
HW6 due Monday 10/13/2003

Q1: How many sequences $\mathbf{x} = x_1 x_2 \cdots x_n \in \{a, b, c\}^n$ are there for which there is no i such that $x_i x_{i+1} = ab$?
[Hint: The number of k-subsets of $[n-1]$ with no consecutive elements is $\binom{n-k}{k}$. We put down $n-1-k$ markers and then place the k elements into the gaps, including the ends.]

Q2: How many symmetric $n \times n$ 0-1 matrices are there in which every row has at least one non-zero?