

CSC236, Summer 2005, Assignment 2

first portion of hints

Danny Heap

1. Work out the number of outputs for sequences of length 3 and 4 by hand, and look for a pattern. Does the position that the first character of the original sequence occupies in the output divide the problem into smaller examples of the same problem?
2. Think about properties that language \mathcal{T}^* has that guarantee claims (a)–(c). It might be useful to prove those properties first.
3. Re-read lecture 4.
4. Induction is only required for one part of this question. Regroup the sums and use standard algebraic techniques for most of the parts.