# 6.851 Advanced Data Structures (Spring'12)

## Prof. Erik Demaine

$\boxed{\text{Problem 9}}$   *Due: Thursday, Apr. 26*

Be sure to read the instructions on the assignments section of the class web page. Remember to keep your solutions to one page!

**Substring matching.**   Given two strings $S_1$ and $S_2$, and a positive integer $k$, find the number of substrings of $S_1$ of length at least $k$ that occur in $S_2$. Develop and analyze an algorithm to solve this problem in $O(|S_1| + |S_2| + \text{sort}(\Sigma))$ time.

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