

6.851 ADVANCED DATA STRUCTURES (SPRING'12)

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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.