

Algorithms in Bioinformatics II, SS2003
Assignment sheet # 6

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1 Complexity (2 points)

What is the worst-case complexity of the WOTD-algorithm for computing suffix trees, as a function of n , the length of the text?

What is the size of table T ? What is the size of array *suffixes*? The algorithm requires a second array of the same size as *suffixes*, why?

2 Application of the WOTD-algorithm (5 points)

Please give a step-by-step description of how the WOTD-algorithm builds a suffix tree for the text `mississippi` (NOT `mississippi`). Please report the values of the different variables (*suffixes*, T , *leaf*, *unevaluated* and *lastchild*) after each step.

3 Draw a suffix tree and see a maximal repeat (3 points)

Please draw the suffix tree representing the text `mississippi`.

What is the longest maximal repeat contained in the text? Please show how to see this directly from the suffix tree that you have drawn.

Assignments due: **Tuesday, June 10, 10am**