

ECS 122b HW3

Geoffrey Mohn

TOTAL POINTS

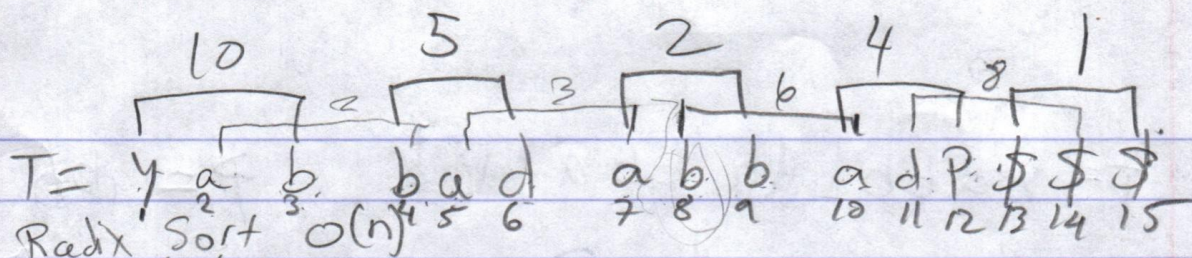
100 / 100

QUESTION 1

1 Problems 1-4 **100 / 100**

✓ - **0 pts** *Correct*

- **100 pts** No sub



Radix Sort	Rank
1) 13) $\$ \$ \$$	1
2) $a b b$	2
7) $a b b$	2
8) $a d a$	3
10) $a d p$	4
4) $b a d$	5
9) $b a d$	5
3) $b b a$	6
8) $b b a$	6
6) $d a b$	7
11) $d p \$$	8
12) $p \$ \$$	9
1) $y a b$	10

$SA = (T)_{1, 2, 3, 4, 5, 6, 7, 8, 1}$

$T' = [10, 5, 2, 4, 1, 2, 3, 6, 8]$

$SA(T')$

$SA_{1,2} = [3, 2, 7, 5, 10, 4, 8, 11, 1]$

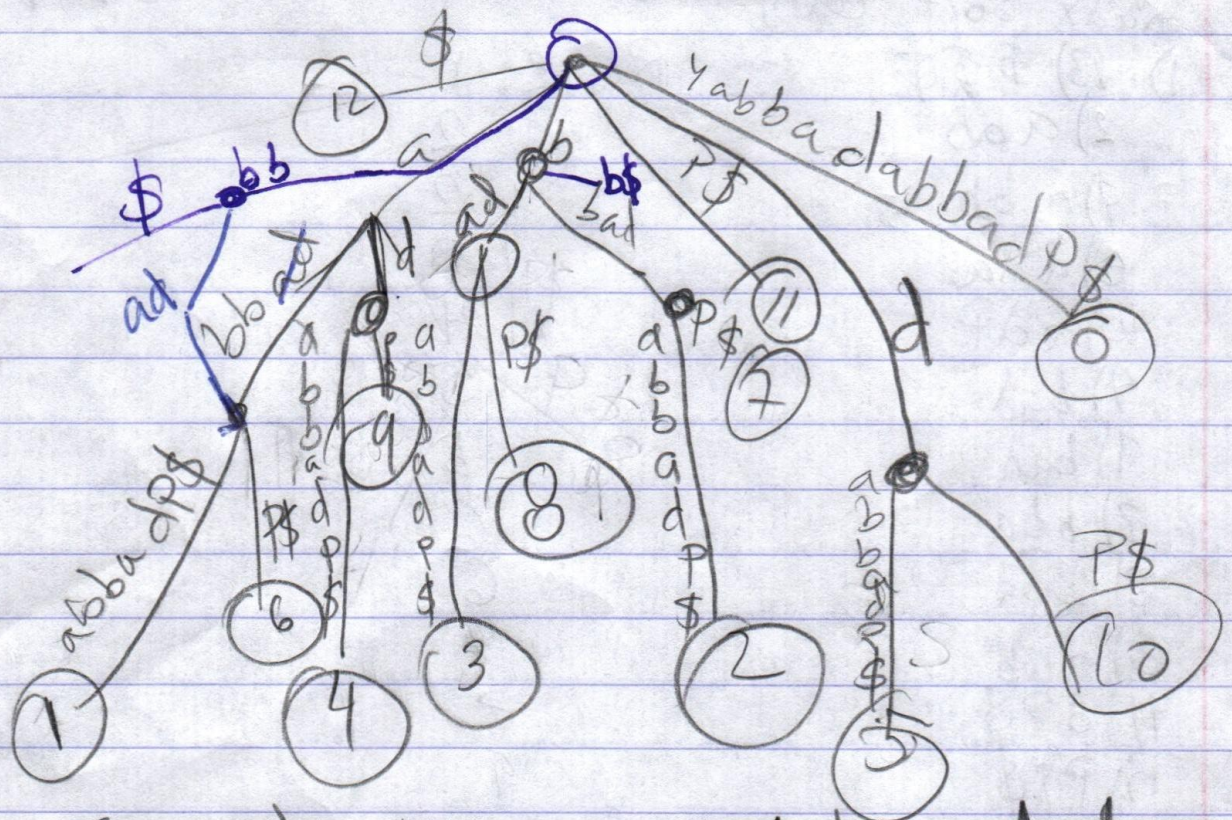
2) $O(m \log n)$ where $m = |P|$ $n = |T|$

$T[8] \leq P \rightarrow T[4] \leq P \rightarrow T[6] \leq P \rightarrow T[7] \leq P$

3) $O(m + \log n)$

$LCP[] = [3, 1, 2, 0, 1, 0, 0]$

4) $T = yabbada bbadp\$$ $P = abb$



$O(m+n)$ where $m = |P|$ & $n = |T|$

5) ~~$n \times (n+1) =$~~ \rightarrow $\frac{3}{2}n = \text{nodes}$ $\frac{3}{2}n - 1 = \text{edges}$

internal node ≥ 3

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