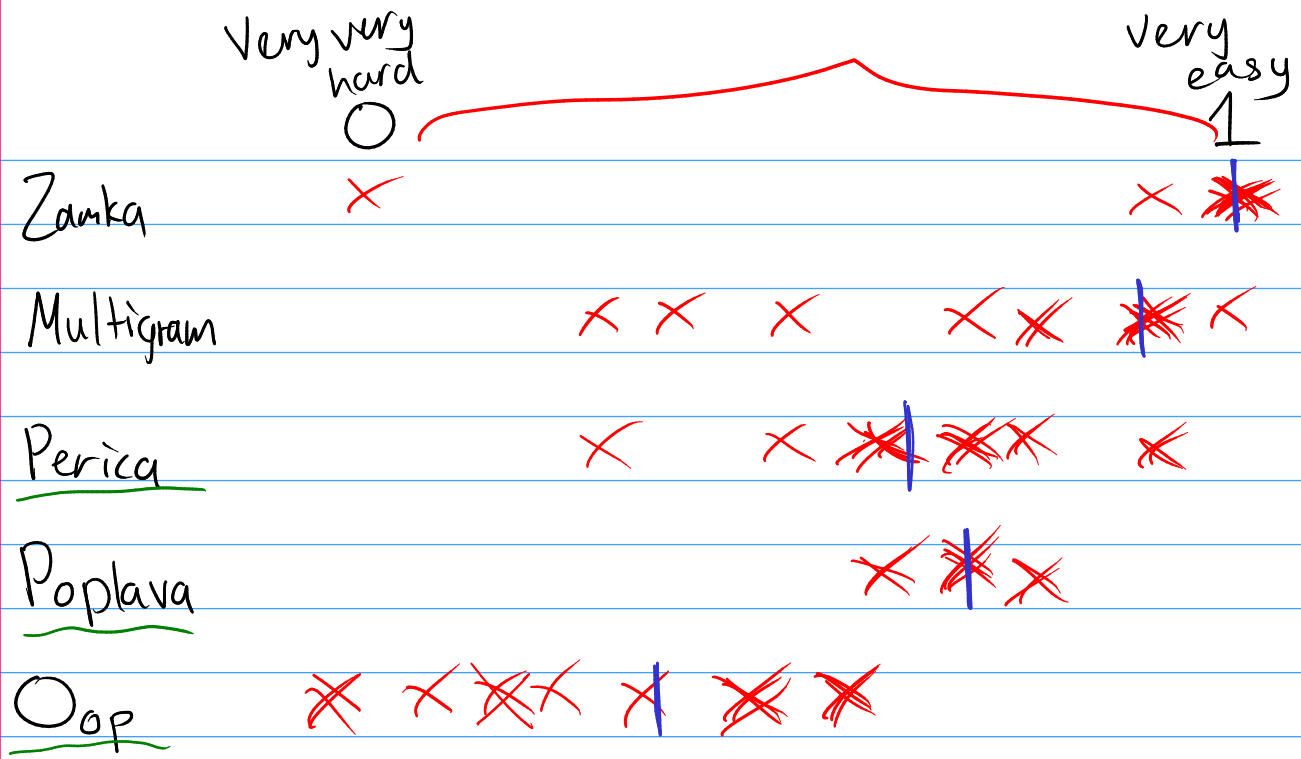


Perica

2 4 2 3 4 $K=3$

2 2 3 4 4

1 3 6

$3\times1 + 4\times3 + 4\times6$

$= 39$

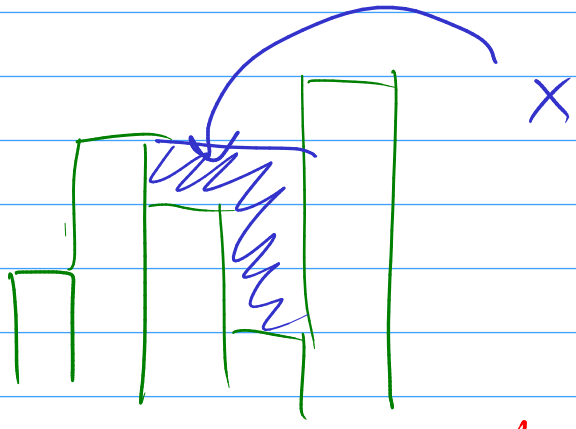
$a_1\ a_2\ a_3\ a_4\ a_5$

$$ans = \sum_i a_i \binom{i-1}{k-1} \% 1000000007$$

Precalculate $\binom{i}{k}$ for all i

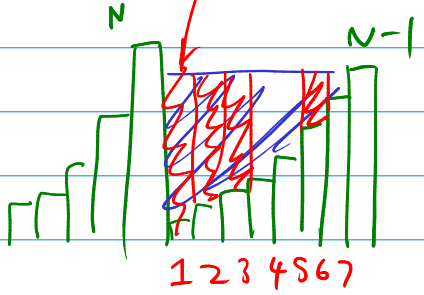
$$\binom{i}{k} = \left(\binom{i-1}{k-1} + \binom{i-1}{k}\right) \% 1000000007 \Rightarrow DP$$

Poplavq



Max capacity?

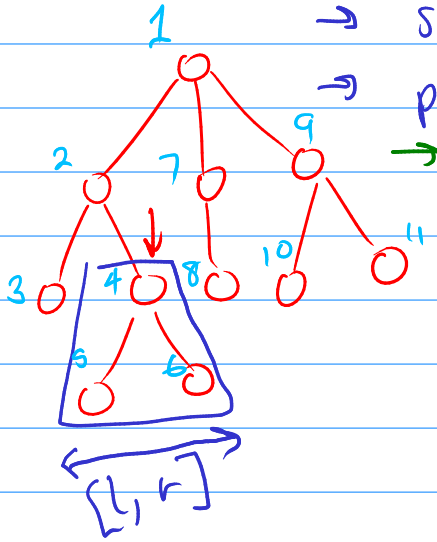
$Y - (N-1-a_i)$

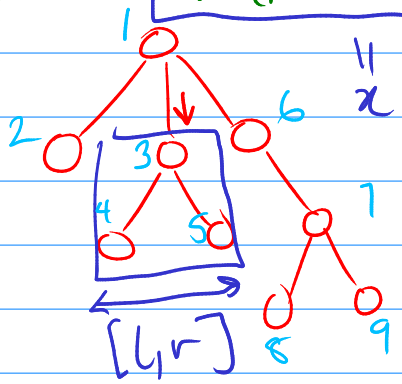


Oop

Q ____ P ____ * ____ S ____

→ prefixes match
→ suffixes match $[x, \infty)$
→ p and s do not overlap
→ length(S) ≥ length(p) + length(s)

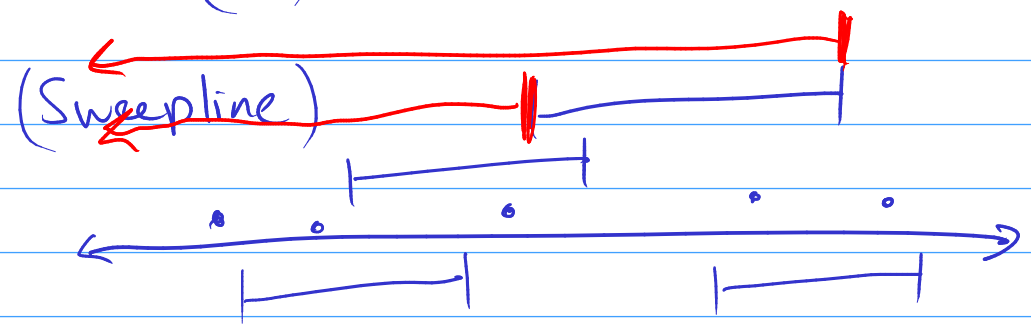




3D range query

↳ 2D range query

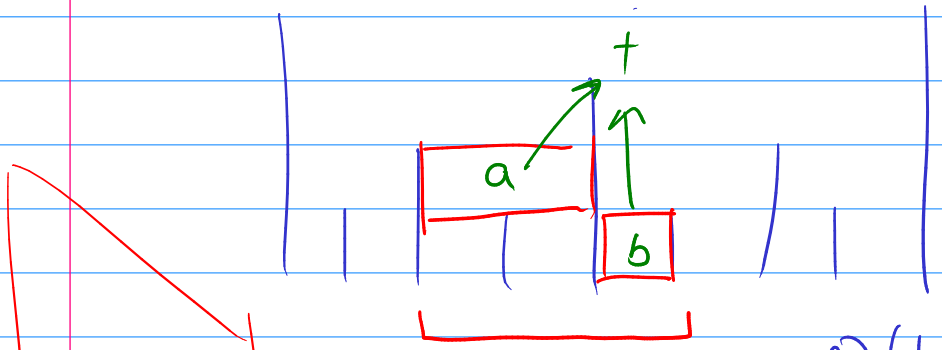
$n-d \rightarrow (n-1)-d$



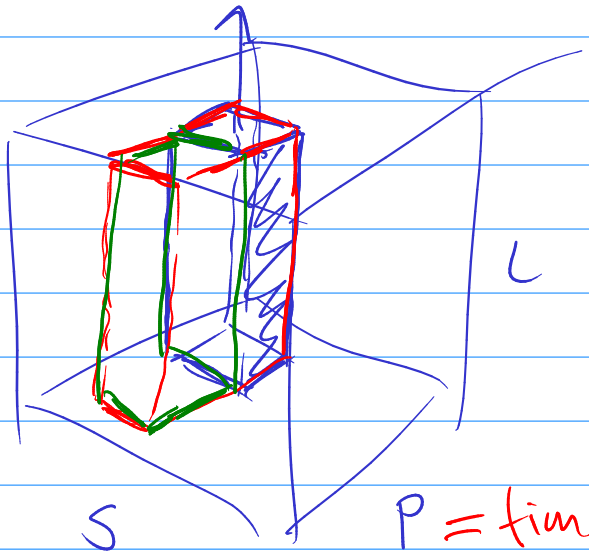
Segtree of Order Statistic Trees

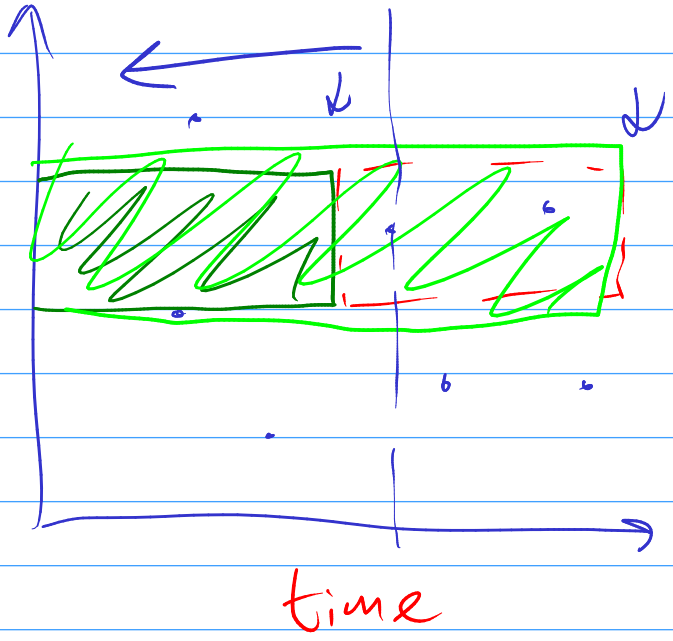
2 4 5 6 7 8

$O(\log n)$



$O(\log^2 n)$




time