

1 $fun(s)$
 $\hookrightarrow fun(s, 0)$ \rightarrow idx
 $if (idx \geq s.length())$
 $\{$
 $\}$

2) $f(n) = f(n-1) + f(n-1)$ 2^n
 $f(n) = 2 \times f(n-1)$ 2^n

$f(5) \rightarrow 2 \times f(4) \rightarrow 2 \times f(3) \rightarrow 2 \times f(2)$
 \downarrow
 $2 \times f(1)$

Subsequence
 $a b c d$ \rightarrow $b c d$

Take or Not Take

a b c

| | | |
|---|-----|-------|
| a | a b | a b c |
| b | b c | " |
| c | a c | |

8 9

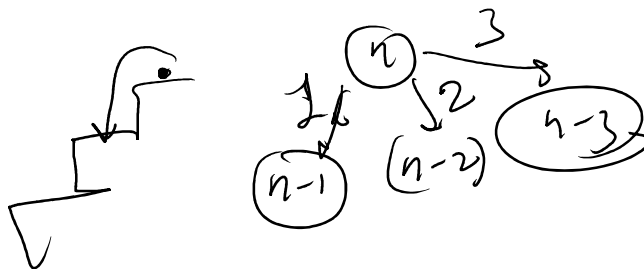
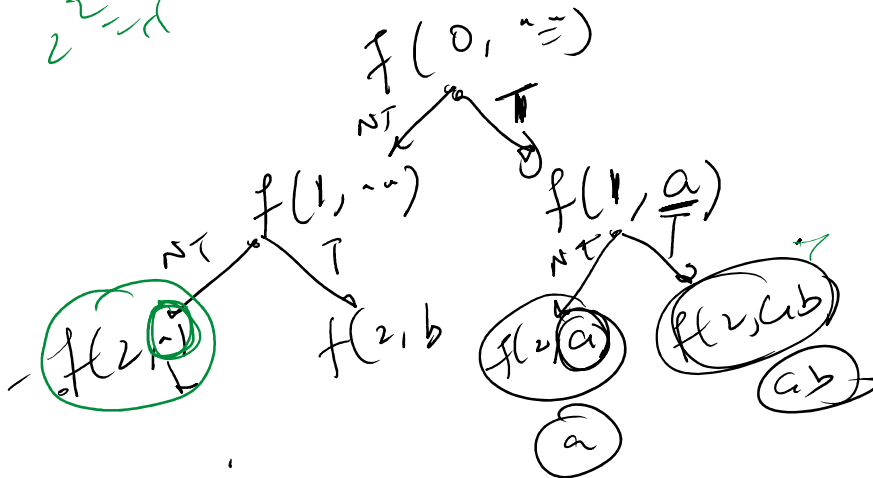
$\text{No of subsequences of a string of length } n$
 \downarrow
 $\text{includes empty} \} = 2^n$

$2 \times \underline{2} \times 2 \quad [2^n]$

subsequence

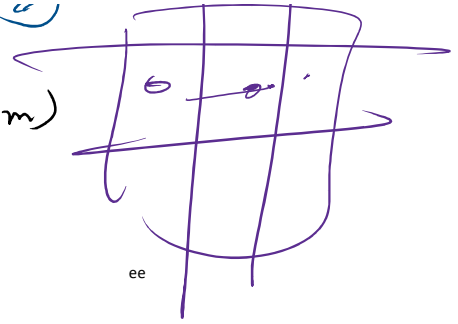
abc

$2^n = 8$

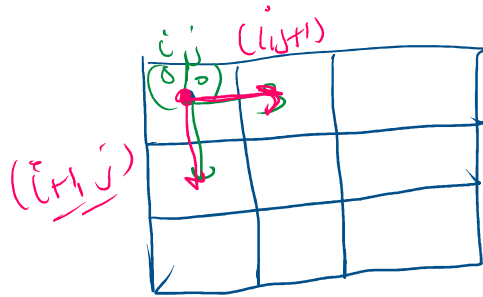


3
 12

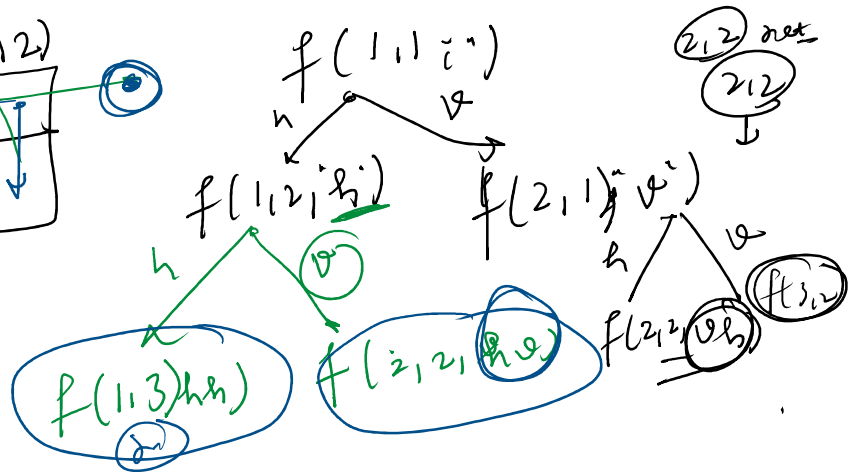
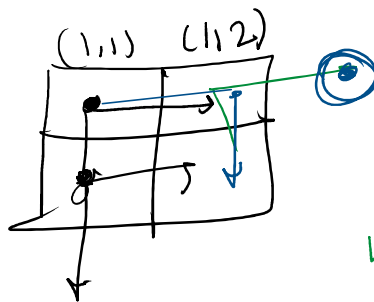
$f(arr, \underline{(i, j)})$
 if $(i < 0 \vee j < 0 \vee i \geq n \vee j \geq m)$



1

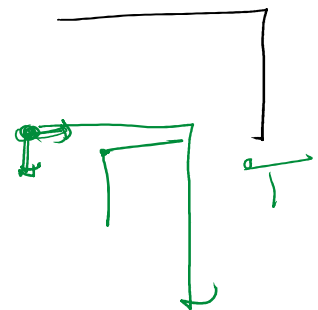


ho



h v

$O(n+m)$



2m