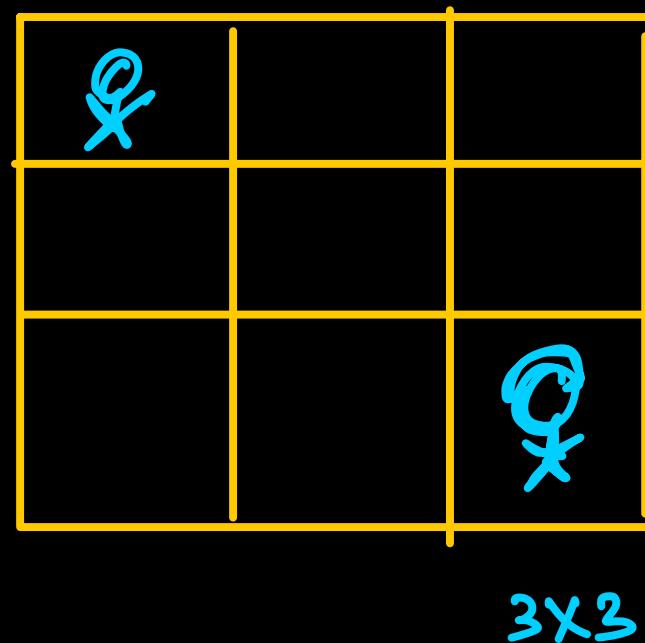
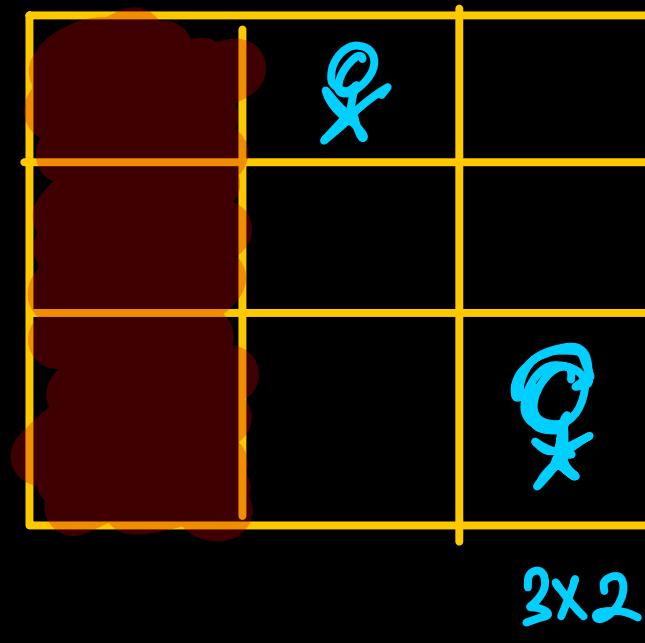


# Ques: Unique Paths

Down & Right

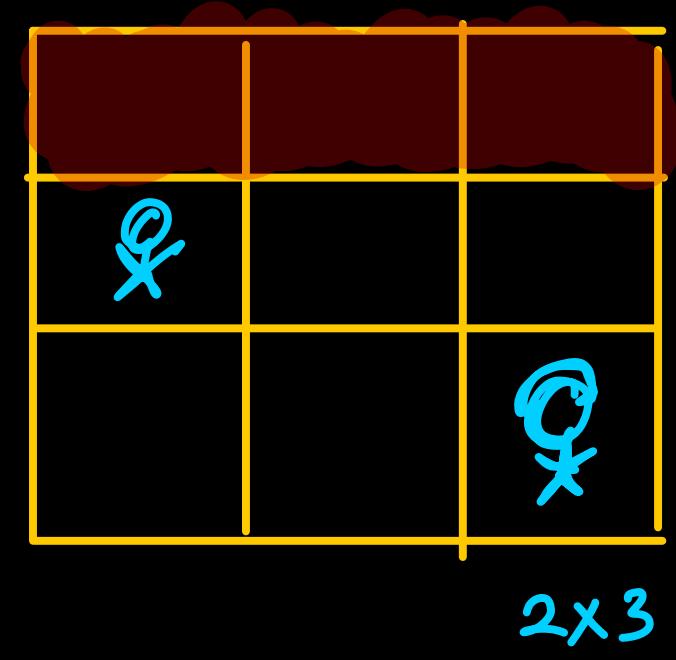


=



2x2

+



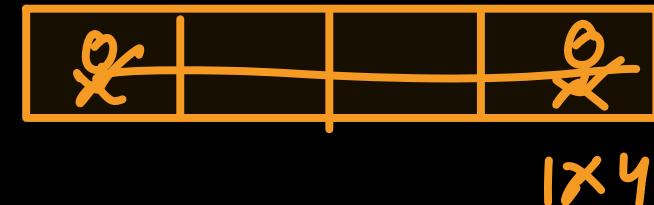
2x3

$$\text{paths}(m, n) = \text{paths}(m-1, n) + \text{paths}(m, n-1)$$

RLDD      DRRD  
RDRD      DRDR  
RDDR      DDRR

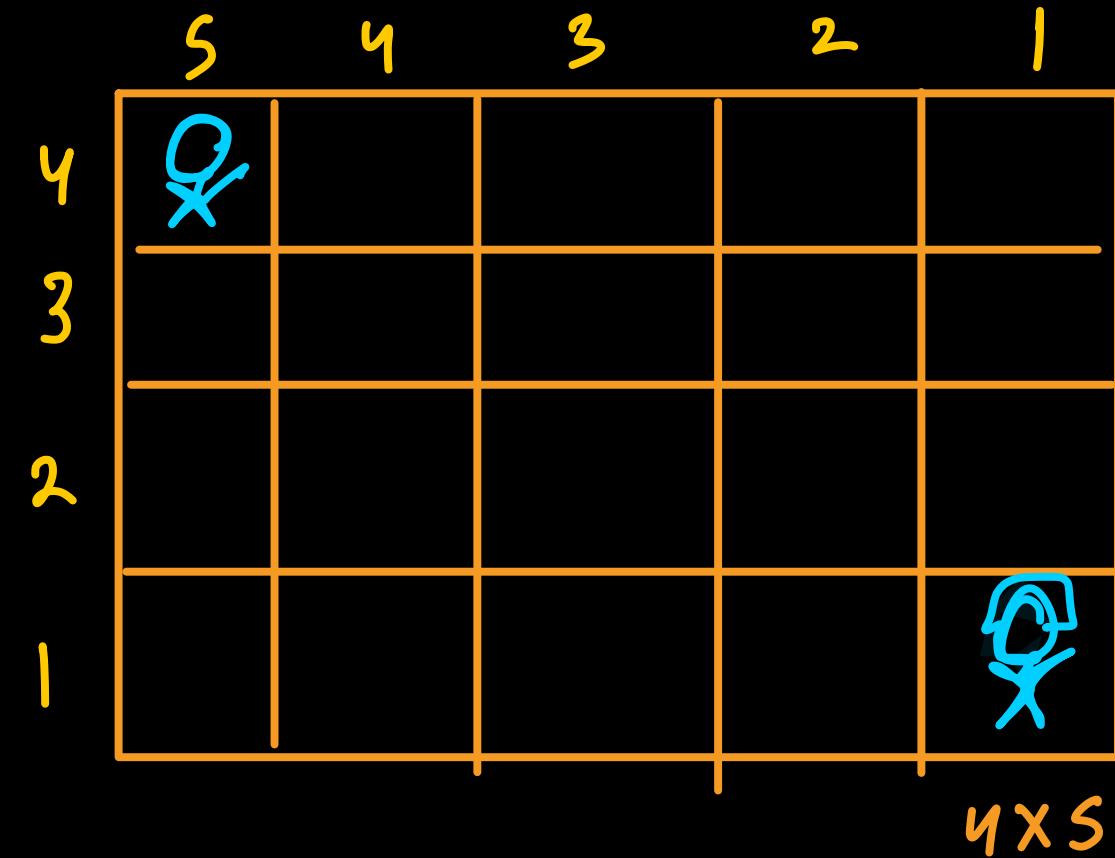


3x1



1x4

# Ques: Unique Paths



$(l, l)$  to  $(m, n)$   
 $(m, n)$  to  $(l, l)$

# Recursion on Arrays

H.W. Reverse an Array using recursion

# Binary Search using Recursion

H.W.: First occurrence of ele using recursion .

# Array of Strings

# Ques: Power Set

"a b c d e"      "ace"  
↓  
subsequence / subset

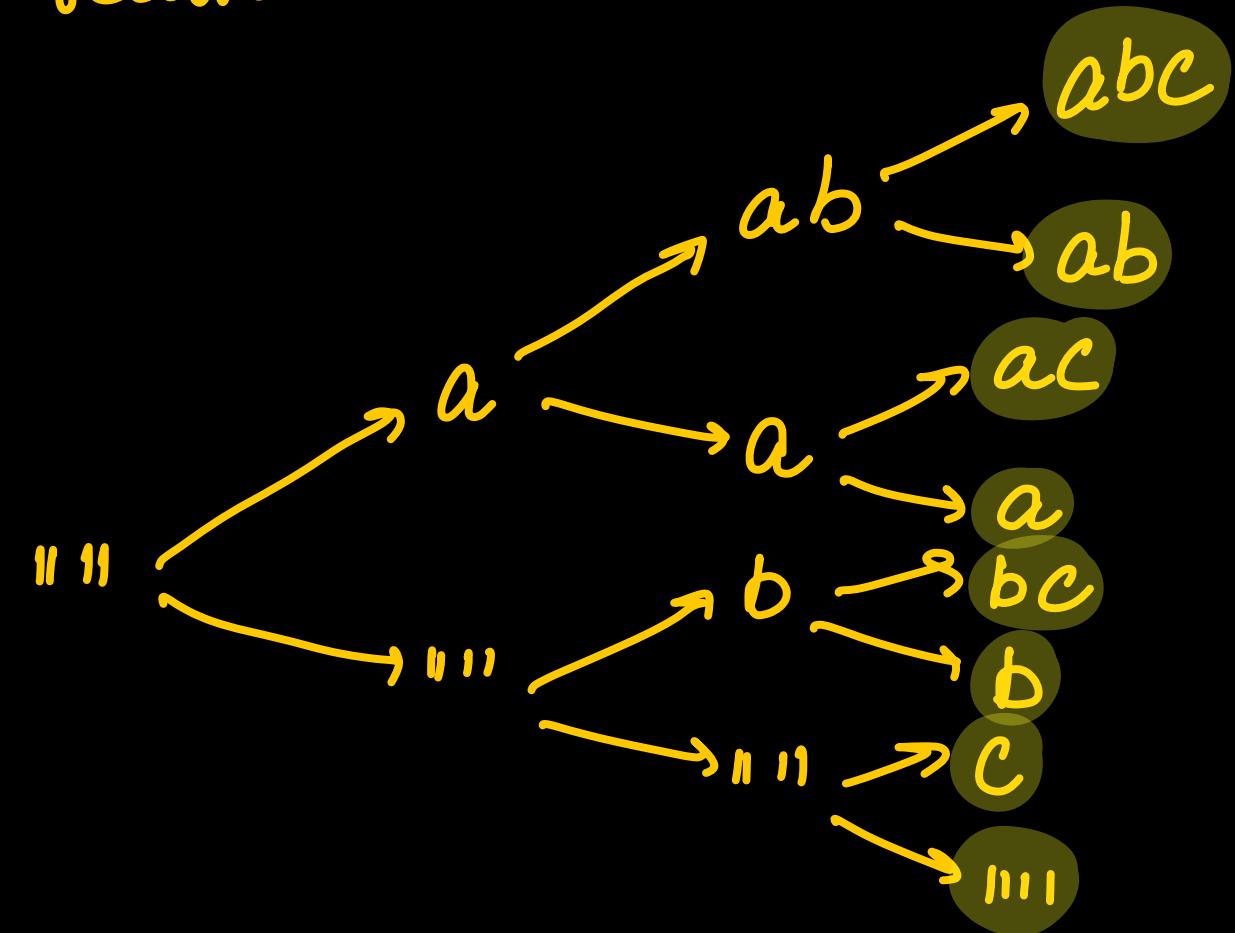
$S = "abc"$      $\{ "a", "b", "c", "ab", "ac", "bc", "abc" \}$   
↓ lexicographical (sort)

{ a, ab, abc, ac, b, bc, c }

# Ques: Power Set

pick & skip wali recursion

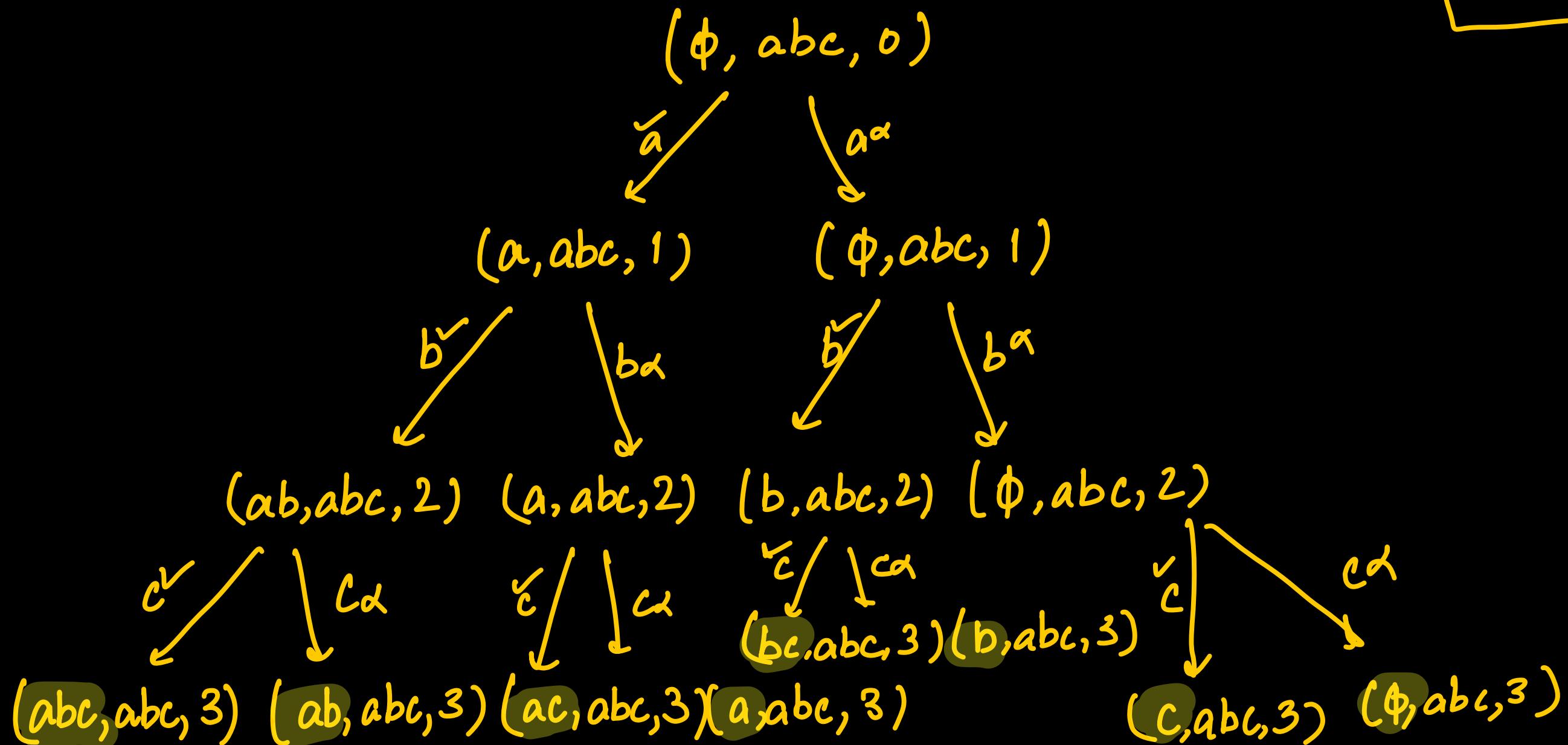
abc





# Ques: Power Set

$\emptyset$  means ""



# HW: Subsets Sum