

Coin Change II

dp = (n + 1) x (tar + 1)



0

1

2

3

4

5

0

	1	0	0	0	0	0
1	1	1	1	1	1	1
2	1	1	1 + 1	1 + 1	2 + 1	
3	1					



2 + 1

2 (1 + 1) = 4

2 (2) = 4

inc → 2

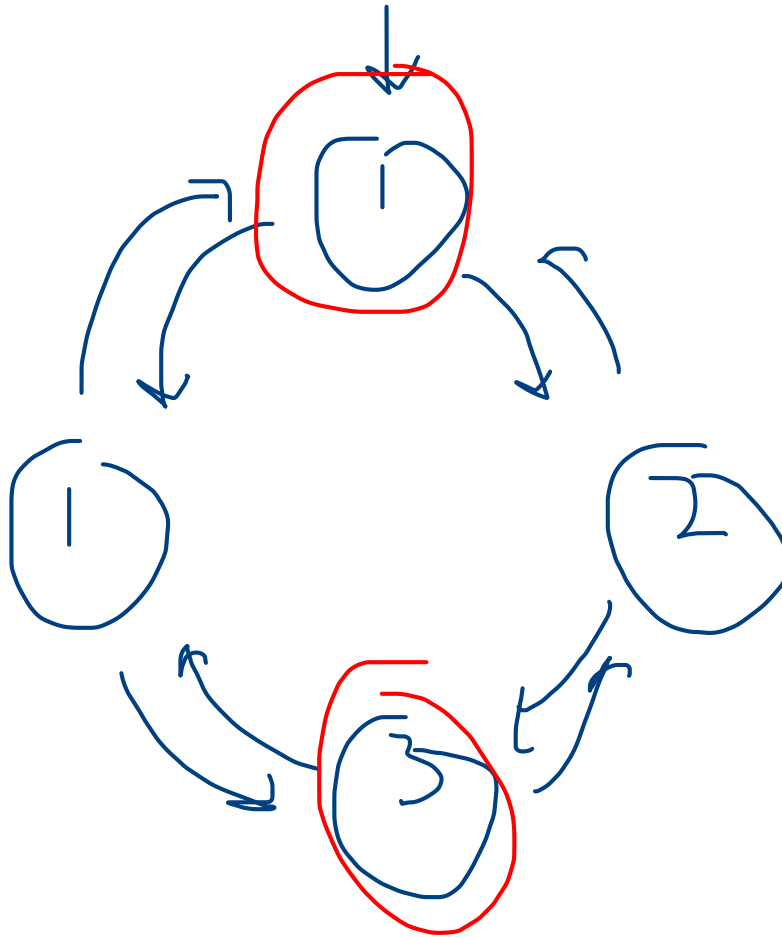
src

1
2

5

3

House Robber II



7 6 | 4

7

4

-1

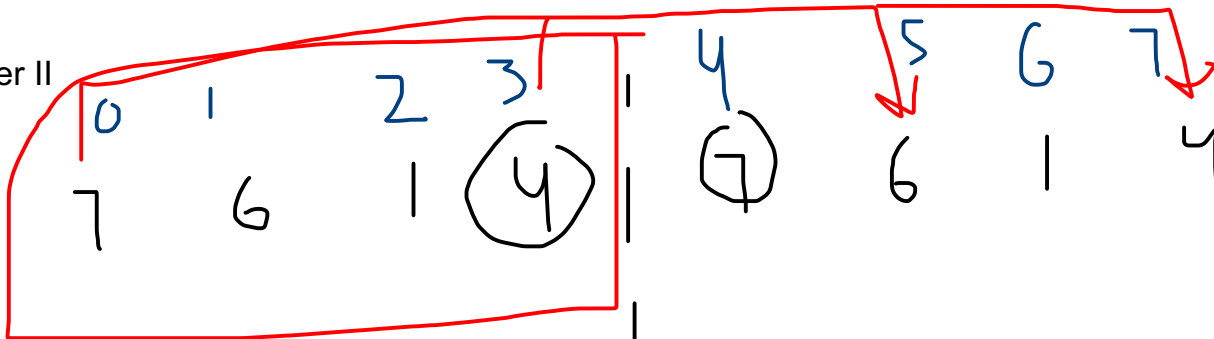
6

10

7 6 | 4

House Robber I --> without circle = 11 [7, 4]

House Robber II



do y
len of
arr

$$7 + 4 + 6 + 4 = 21$$

Longest Common Subsequence (LCS)

$S_1 = a b c d e f$

$S_2 = a c e f$

$a c f$
(4)

$S_1 = a b c d f$

$S_2 = b d g f$

$b d f$
(3)

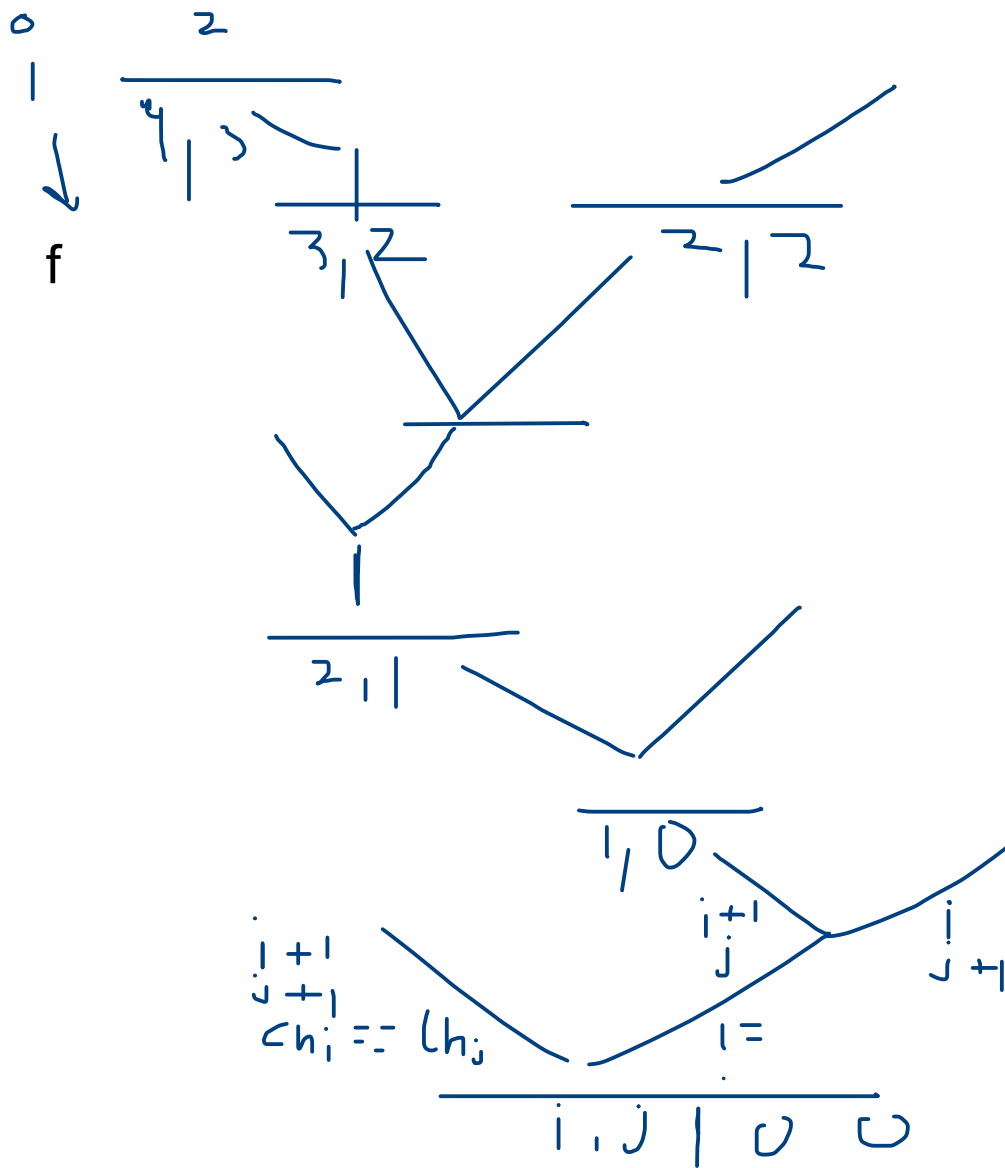
str1 --> a b c d f

str2 --> b d g f

|

j
↑
a

b d f



1 + same recursive calls

$i + 1, j + 1$

$i + 1, j$

$i, j + 1$

max

$chi == chj$

$chi != chj$

str1 -->



a

b

c

d

f

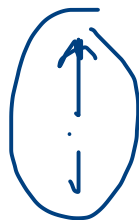
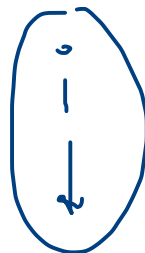
str2 -->

b

d

g

f



6 d 6

Tabulation --> DP --> $(\text{str1.len} + 1) \times (\text{str2.len} + 1)$

b

a

g

b

a
b
c
a
g

b

chi != chj

minL

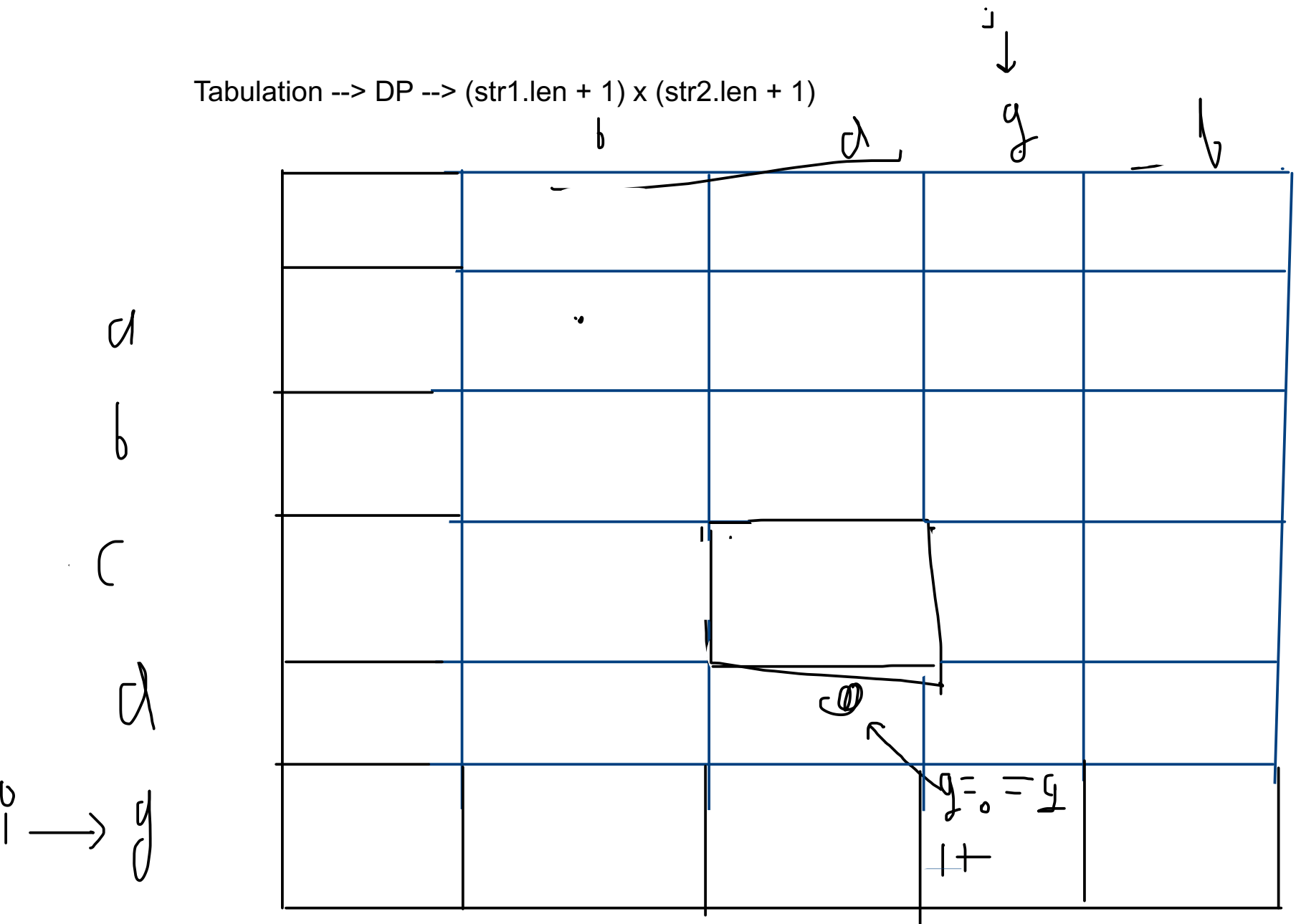
1.

abc and b

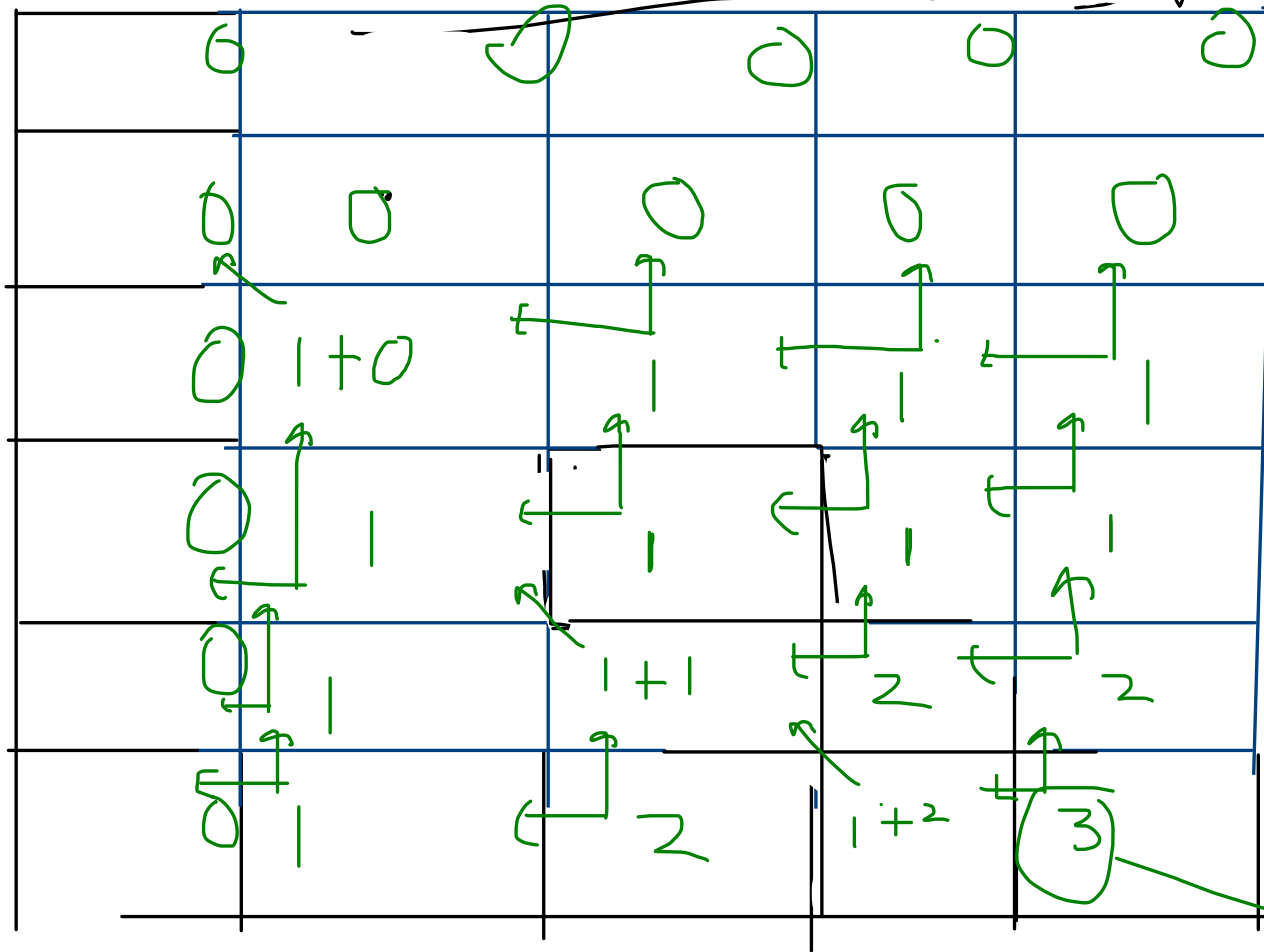
2.

ab and bd

Tabulation --> DP --> $(\text{str1.len} + 1) \times (\text{str2.len} + 1)$



a
b
c
d
g



chi == chj
 $1 + dp[i - 1][j - 1]$
 chi != chj
 $\max(dp[i - 1][j], dp[i][j - 1])$

ans

