

# Minimum Path Sum

Saturday, April 18, 2020

8:54 PM

1	3	1
1	5	10
4	2	1

grid

$$f(3,3) = 1 + 3 + 1 + 1 + 1 = 7$$

Greedy  $1 + 1 + 4 + 2 + 1 = 9$  X

No Greedy

DP 
$$f(3,3) = \min[f(3,2), f(2,3)] + \text{grid}[2][2]$$

$$= \min(1 + 1 + 4 + 2, 1 + 3 + 1 + 1) + 1$$

$$= 6 + 1 = 7$$

Thus 
$$f(m,n) = \min[f(m,n-1), f(m-1,n)] + \text{grid}[m-1][n-1]$$