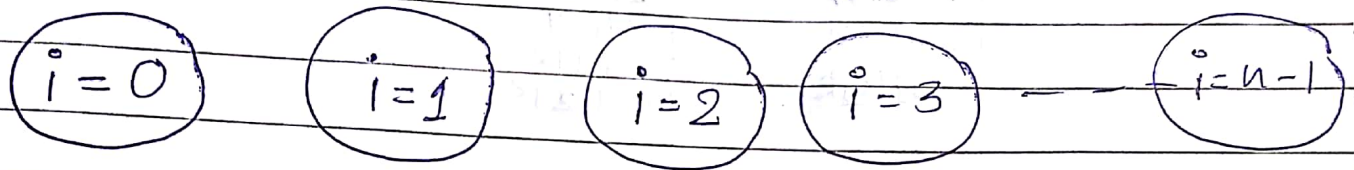


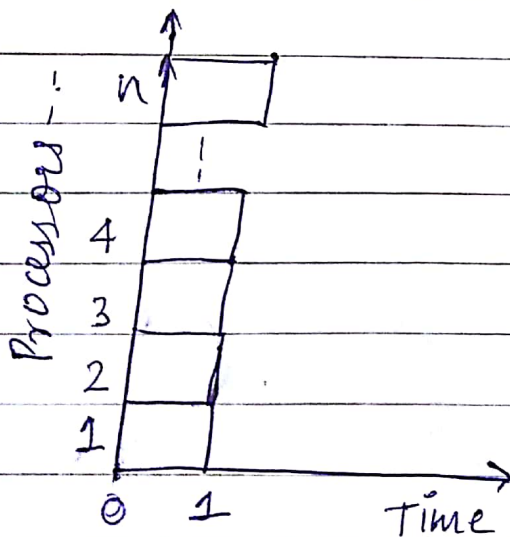
Question 1:



Work =  $n$

Width =  $n$

Critical Path = 1



## Question 2:

1) Time Complexity =  $O(nm)$

2) Considering  $n=4, m=4$

[k=1]

[i,j]

• (0,1)  
F[0][1]W  
F[0][0]R  
C[0][1]R

• (1,1)  
F[1][0]W  
F[0][0]R  
C[1][0]R  
F[1][1]W  
F[0][1]R  
F[1][0]R  
C[1][1]R

• (2,1)  
F[2][1]W  
F[2][0]W  
C[2][0]R  
F[2][0]R  
F[2][1]R  
C[2][1]R

• (3,1)  
F[3][1]W  
F[2][0]R  
C[3][1]R  
F[3][0]W  
F[2][1]R  
F[3][0]R  
C[3][1]R

[k=2]

• (0,2)  
F[0][2]W  
F[0][1]R  
C[0][2]R

• (1,2)  
F[1][2]W  
F[0][2]R  
F[1][1]R  
C[1][2]R

• (2,2)  
F[2][2]W  
F[1][2]R  
F[2][1]R  
C[2][2]R

• (3,2)  
F[3][2]W  
F[2][2]R  
F[3][1]R  
C[3][2]R

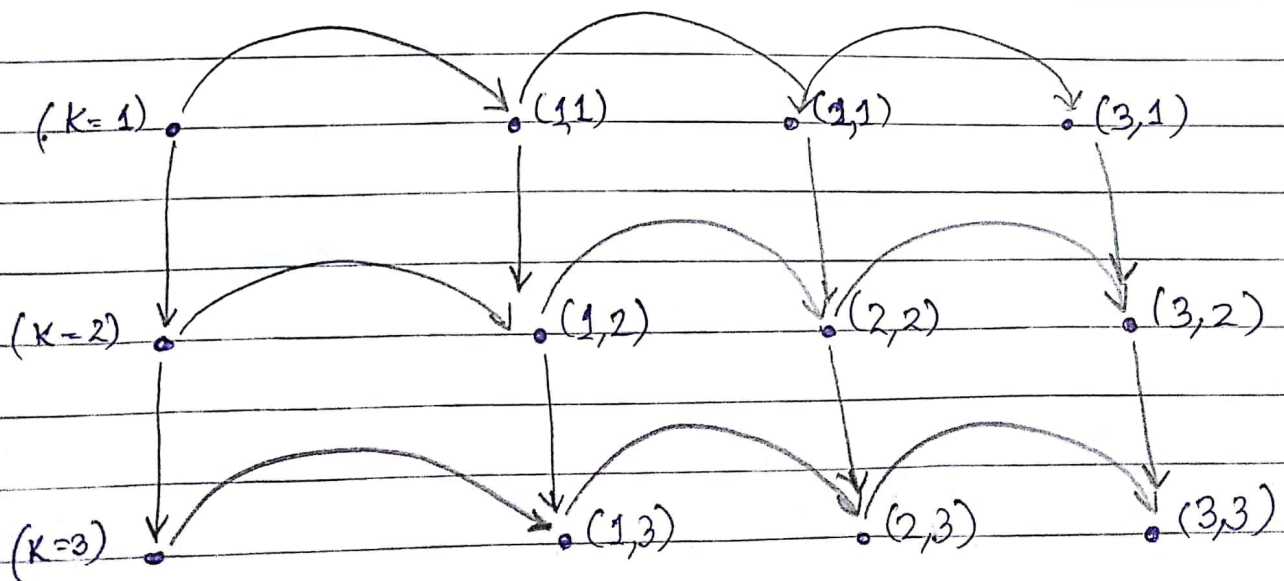
[k=3]

• (0,3)  
F[0][3]W  
F[0][2]R  
C[0][3]R

• (1,3)  
F[1][3]W  
F[0][3]R  
F[1][2]R  
C[1][3]R

• (2,3)  
F[2][3]W  
F[1][3]R  
F[2][2]R  
C[2][3]R

• (3,3)  
F[3][3]W  
F[2][3]R  
F[3][2]R  
C[3][3]R



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

$$\text{Width} = m - 1$$

$$\text{Critical Path} = (m-1) + (n-1)$$