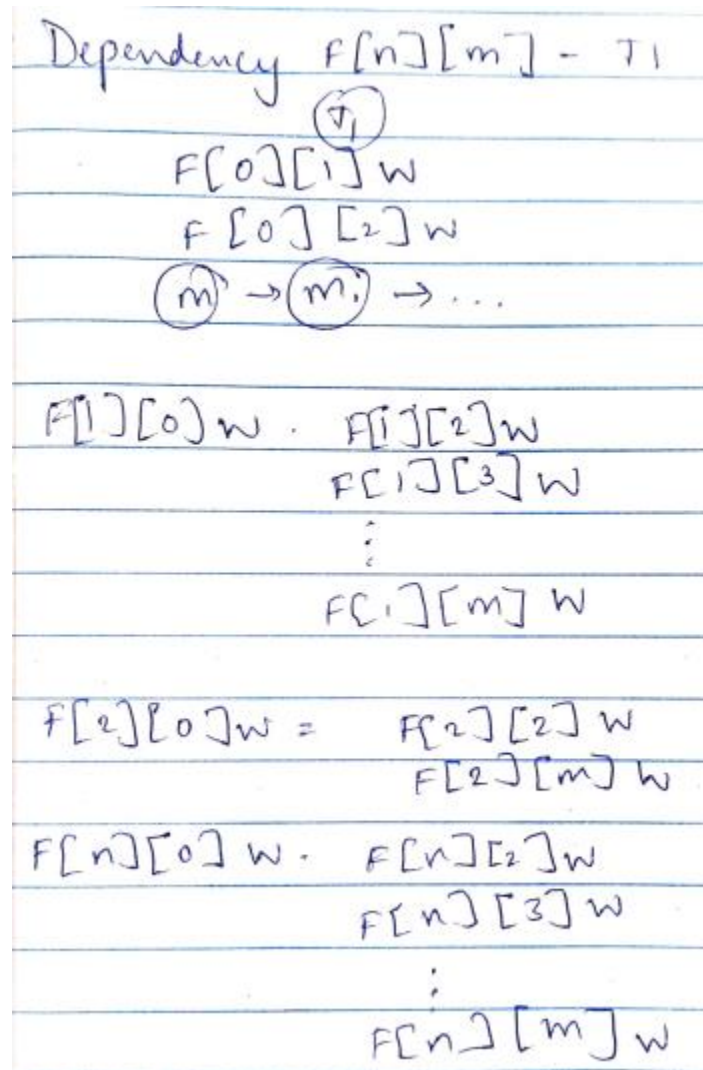


Coin Problem :

The complexity of this function is $O(n*m)$



What is the width?
width would be m .

Question: What is the work?

Answer:- $O(n*m)$

Question: What is the critical path? What is its length?

Answer:- Critical Path is $O(n+m)$ and the length is the sum of processing time of all the task within the critical path.

2 Knapsack

Complexity of algorithm is $O(nW)$

Question: What is the width?

Answer: width is $(W+1)$

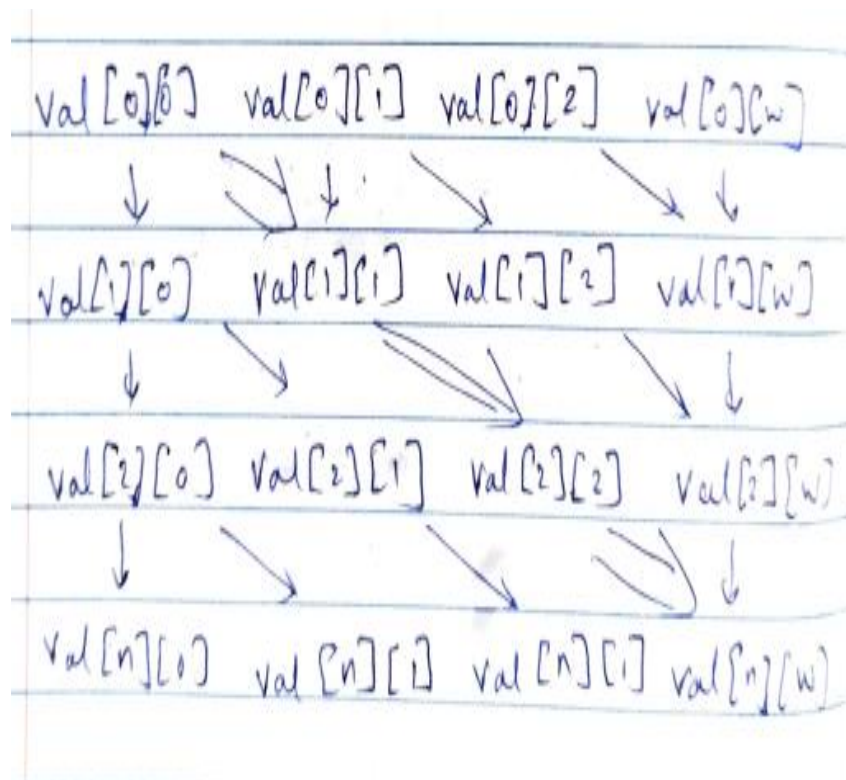
Question: What is the work?

Answer: $O(n*W)$

Question: What is the critical path? What is its length?

Answer: The critical path would be length of the diagonal as shown in the diagram above ($n \rightarrow W$)

Question: Extract the dependencies.

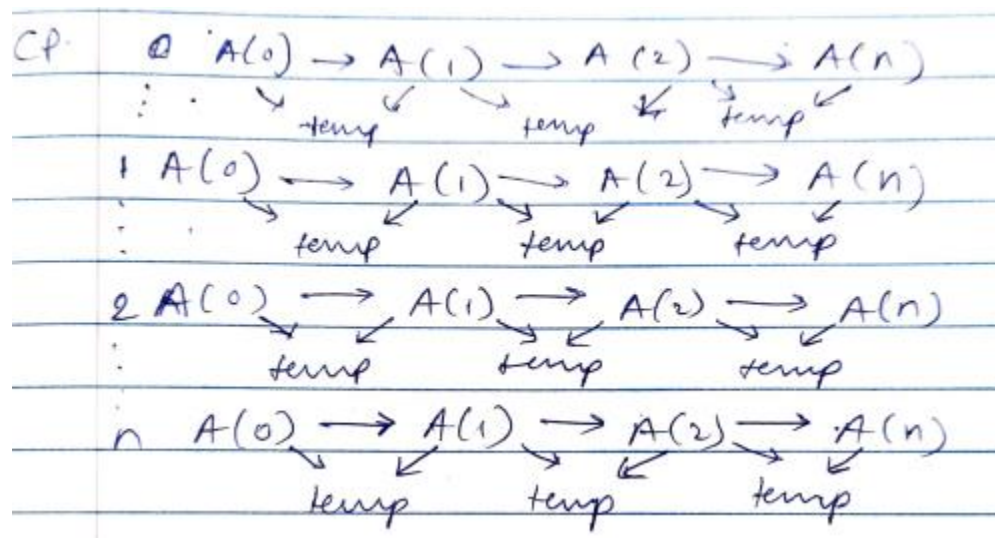


3 Bubble Sort

The complexity of this function is $O(n^2)$

Question: Extract the dependencies.

Answer:



Question: What is the width?

Answer: $O(N/2)$.

Question: What is the work?

Answer: Total work is $N*(N-1)$

Question: What is the critical path? What is its length?

Answer: Critical path is each row $(n + ((n-1)*temp))$

00 -> temp -> 01 -> temp -> 02 -> - - - - -> temp -> 0(n-1)