class Solution(object):

def maxCoins(self, nums):

"""

:type nums: List[int]

:rtype: int

"""

if len(nums)==0:

return 0

nums.insert(0,1)

nums.append(1)

dp = [[float("-inf") for i in range(len(nums))] for i in range(len(nums))]

for i in range(len(nums)):

dp[i][i] = 0

for i in range(len(nums)-1):

dp[i][i+1] = 0

for lgn in range(3,len(nums)+1):

for i in range(len(nums)-lgn+1):

j = i+lgn-1

for k in range(i,j):

dp[i][j] = max(dp[i][j],dp[i][k]+dp[k][j]+nums[i]\*nums[j]\*nums[k])

return dp[0][-1]