class Solution:

def removeBoxes(self, boxes: List[int]) -> int:

N = len(boxes)

dp = [[[0]\*N for i in range(N) ] for j in range(N)]

def helper(l, r, k):

if l>r: return 0

if l==r: return (k+1)\*(k+1)

if dp[l][r][k]!=0: return dp[l][r][k]

ans = (k+1)\*(k+1)+helper(l+1, r, 0)

for m in range(l+1, r+1):

if boxes[l]==boxes[m]:

ans = max(ans, helper(l+1, m-1, 0)+helper(m,r,k+1))

dp[l][r][k]=ans

return ans

return helper(0, N-1, 0)