# -\*- coding: utf-8 -\*-

"""

Created on Sat Jan 9 14:20:02 2021

@author: danny

"""

def knapsack(W,wt,val):

n=len(val)

table=[[0 for x in range(W+1)] for x in range(n+1)]

for r in range(n+1):

for c in range(W+1):

if r==0 or c==0:

table[r][c]=0

elif wt[r-1]<=c:

table[r][c]=max(val[r-1]+table[r-1][c-wt[r-1]],table[r-1][c])

else:

table[r][c]=table[r-1][c]

return table[n][W]

weight=[5,3,2,2,3,1]

value=[800,200,600,700,400,100]

bag\_weight=5

print('最高價值:',knapsack(bag\_weight,weight,value))