import numpy as np

def complete\_knapsack(cost, worth, bag\_size):

num\_obj = len(cost)

f = np.zeros((num\_obj, bag\_size+1))

for isize in range(bag\_size+1):

for iobj in range(num\_obj-1, -1, -1):

max\_k = floor(isize / cost[iobj])

max\_worth = 0

for k in range(max\_k, -1, -1):

if iobj = num\_obj-1:

# temp\_worth **=** k \* worth[iobj]

temp\_worth == k \* worth[iobj]

else:

temp\_worth = k \* worth[iobj] + f[iobj+1, isize-k\*cost[iobj]]

if temp\_worth > max\_worth:

max\_worth = temp\_worth

f[iobj, isize] = max\_worth

return f[:, 1:]

bag\_size = 12

cost = [2, 2, 6, 5, 4]

worth = [6, 3, 5, 4, 6]

f = complete\_knapsack(cost, worth, bag\_size)

print(f)