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Question 1 :

```
n = int(input())
wt = list(map(int,input().split()))
val = list(map(int,input().split()))
w = int(input())
dp = [[0 for i in range(w+1)] for j in range(n+1)]
def ks(w,wt,val,n):
    if n==0 or w==0:
        return 0
    if dp[n][w]:
        return dp[n][w]
    if wt[n-1]<=w:
        dp[n][w] =
max(val[n-1]+ks(w-wt[n-1],wt,val,n-1),ks(w,wt,val,n-1))
    else:
        dp[n][w] = ks(w,wt,val,n-1)
    return dp[n][w]

print('max value:',ks(w,wt,val,n))

for i in dp:
    print(*i)

def ele():
    global w
    res = dp[n][w]
    W = w
    picked = []
    for i in range(n, 0, -1):
        if res <= 0:
            break
```

```

        if res == dp[i - 1][W]:
            continue
        else:
            picked.append(wt[i - 1])
            res = res - val[i - 1]
            W = W - wt[i - 1]
    print(*picked)

ele()

```

Output :

```

gml8:sabari cseb08$ /usr/local/bin/python3 /Users/cseb08/Desktop/sabari/ass8/1st.py
5
1 2 3 4 5
4 5 6 7 8
10
max value: 22
0 0 0 0 0 0 0 0 0 0
0 4 4 4 4 4 4 4 4 0 4
0 4 5 9 0 9 9 9 0 0 9
0 4 0 0 0 11 15 0 0 0 15
0 0 0 0 0 11 0 0 0 0 22
0 0 0 0 0 0 0 0 0 0 22
4 3 2 1
gml8:sabari cseb08$ 

```

Question 2 :

```
V = int(input())
INF = 99999
def floydWarshall(graph):
    dist = list(map(lambda i: list(map(lambda j: j, i)), graph))
    for k in range(V):
        for i in range(V):
            for j in range(V):
                dist[i][j] = min(dist[i][j], dist[i][k] + dist[k][j])
    printSolution(dist)

def printSolution(dist):
    for i in dist:
        print(i)

graph = []
print("enter 9999 if no edge is present")
for i in range(V):
    arr = map(int, input().split())
    graph.append(arr)
floydWarshall(graph)
```

Output :

```
To update your account to use zsh, please run `chsh -s /bin/zsh`.
For more details, please visit https://support.apple.com/kb/HT208050.
gml8:sabari cseb08$ /usr/local/bin/python3 /Users/cseb08/Desktop/sabari/ass8/2nd.py
5
enter 9999 if no edge is present
5
0 1 2 3 4
1 0 2 3 4
1 2 0 3 4
gml8:sabari cseb08$ /usr/local/bin/python3 /Users/cseb08/Desktop/sabari/ass8/2nd.py
4
enter 9999 if no edge is present
0 3 9999 5
2 0 9999 4
9999 1 0 9999
9999 9999 2 0
[0, 3, 7, 5]
[2, 0, 6, 4]
[3, 1, 0, 5]
[5, 3, 2, 0]
gml8:sabari cseb08$
```