

```

import numpy as np
W=
[77,72,89,30,29,19,34,68,35,44,55,92,93,78,14,36,95,56,87,18,63,51,85,37,37,1,89,16,43,44,35,16,
6,12,56,92,51,64,49,93,22,77,4,74,64,40,9,73,77,9]
Camiones=5
Contenedores=50

#PARCIALES
SP= [-1] * 50
SPK= np.zeros(5)
SPD= 0

SPK[0] =W[0]
SP[0] = 0

#OPTIMO
SOpt= np.zeros(50)
SOptK=np.zeros(5)
SOptD=sum(W)

def asignacion( SP, SPK, SPD, i ):
    global SOptD
    global SOpt
    global SOptK
    if (i == Contenedores):
        if SPD<SOptD:
            SOpt=SP
            SOptD=SPD
            SOptK=SPK

            print(SOptD)
            print(SOptK)
            print(SOpt)

    else:
        if i<Camiones:
            A_=i
        else:
            A_=Camiones

        for A in range(A_):
            if (SPK[A] + W[i])<=(sum(W)/4.999): #1 kimaketa
                SP[i]=A
                SPK[A]+= W[i]
                asignacion(SP, SPK, (max(SPK) - min(SPK)), i+1)
                SP[i]=-1
                SPK[A]-= W[i]

asignacion(SP, SPK, SPD, 1)
print(SOptD)

```

```
print(SOpt)
```