Question :

You are given with the Rank and Height of the students in a class. Print the maximum sum on product of the rank and height of the student on any arrangement.

Constraints :

1 <= N <= 10000
0 <= rank [i] <= N-1
1 <= height [i] <= 100

Input Description :

Number of Students in a class
Rank of the students
Height of the students

Output Description :

Maximum sum on product of rank and height on any arrangement

Solution :

```
import sys

def maxSum(arr, n):

    res = -sys.maxsize
    for i in range(0, n):
        curr_sum = 0
        for j in range(0, n):

            index = int((i + j)% n)
            curr_sum += j * arr[index]

        res = max(res, curr_sum)
    return res
n = int(input())
r = [int(x) for x in input().split()]
h = [int(x) for x in input().split()]
arr = [0] * n
for i in range(n):
    arr[r[i]] = h[i]

print(maxSum(h, n))
```

Test Cases:

Test Case 1:

Input:
4
0 1 2 3
8 3 1 2
Output:
29

Test Case 2:

Input:
7
0 4 5 6 1 2 3
8 3 1 2 4 5 6
Output:
115

Test Case 3:

Input:
5
0 4 2 3 1
1 2 4 5 6
Output:
49

Test Case 4:

Input:
10
0 7 8 9 5 6 4 2 3 1
1 2 4 5 6 4 5 6 3 1
Output:
208

Test Case 5:

Input:
9
0 7 8 5 6 4 2 3 1
1 4 5 6 4 5 6 3 1
Output:
172