

PREPARE<sup>NEW</sup>

CERTIFY

COMPETE

Search



1



yasinarafat2413 ▾

[All Contests](#) > [Assignment 04 | Introduction to Algorithms | Batch 03](#) > [Adventure](#)

# Adventure

Problem

Submissions

Leaderboard

Discussions

Submitted 15 hours ago • Score: 25.00

Status: **Accepted**

Test Case #0



Test Case #1



Test Case #2



Test Case #3



Test Case #4



Test Case #5



Test Case #6



Test Case #7



Test Case #8



Test Case #9



Test Case #10



Test Case #11



Test Case #12



Test Case #13



Test Case #14

## Submitted Code

Language: C++20

Open in editor

```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 int main()
5 {
6     int t;
7     cin >> t;
8
9     while (t--)
10    {
11
12        int n;
13        cin >> n;
14        int S;
15        cin >> S;
16
17        int w[n];
18        for (int i = 0; i < n; i++)
19        {
20            cin >> w[i];
21        }
22
23        int v[n];
24        for (int i = 0; i < n; i++)
25        {
26            cin >> v[i];
27        }
28
29        int dp[n + 1][S + 1];
30        // base case conversion
```

```
31     for (int i = 0; i <= n; i++)
32     {
33         for (int j = 0; j <= S; j++)
34         {
35             if (i == 0 or j == 0)
36             {
37                 dp[i][j] = 0;
38             }
39         }
40     }
41
42     for (int i = 1; i <= n; i++)
43     {
44         for (int j = 1; j <= S; j++)
45         {
46             if (w[i - 1] <= j)
47             {
48                 int op1 = dp[i - 1][j - w[i - 1]] + v[i - 1];
49                 int op2 = dp[i - 1][j];
50                 dp[i][j] = max(op1, op2);
51             }
52
53             else
54             {
55                 dp[i][j] = dp[i - 1][j];
56             }
57         }
58     }
59
60     // for(int i = 0; i<=n; i++)
61     // {
62     //     for(int j = 0; j<=S; j++)
63     //     {
64     //         cout<<dp[i][j]<<" ";
65     //     }
66     //     cout<<endl;
67     // }
68
69     cout << dp[n][S] << endl;
70 }
71 return 0;
72 }
```