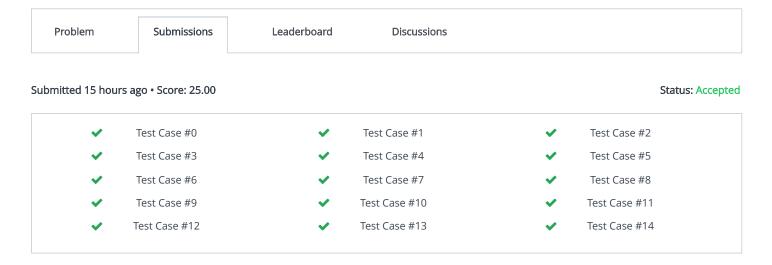
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Adventure



Submitted Code

```
P Open in editor
 Language: C++20
1 #include <bits/stdc++.h>
2 using namespace std;
4 int main()
5 {
       int t;
6
7
       cin >> t;
8
9
       while (t--)
10
11
12
           int n;
           cin >> n;
13
14
           int S;
15
           cin >> S;
16
17
           int w[n];
           for (int i = 0; i < n; i++)
18
19
20
                cin >> w[i];
21
22
23
           int v[n];
           for (int i = 0; i < n; i++)
24
25
                cin >> v[i];
26
27
28
29
           int dp[n + 1][S + 1];
           // 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 \text{ or } j == 0)
36
                     {
37
                         dp[i][j] = 0;
38
                }
39
            }
40
41
            for (int i = 1; i <= n; i++)
42
43
44
                for (int j = 1; j \le S; j++)
45
                     if (w[i - 1] <= j)
46
47
                          int op1 = dp[i - 1][j - w[i - 1]] + v[i - 1];
48
49
                         int op2 = dp[i - 1][j];
50
                         dp[i][j] = max(op1, op2);
51
                     }
52
53
                     else
54
                         dp[i][j] = dp[i - 1][j];
55
56
                     }
57
                }
            }
58
59
            // for(int i = 0; i<=n; i++)
60
61
62
                    for(int j = 0; j<=S; j++)
63
            //
64
            //
                        cout<<dp[i][j]<<" ";</pre>
65
            //
66
            //
                    cout<<endl;</pre>
            // }
67
68
69
            cout << dp[n][S] << endl;</pre>
70
       }
71
       return 0;
72 }
```

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