

All Contests > Final Exam | Introduction to Algorithms | Batch 03 > Exam Marks II

Exam Marks II

Problem	Submissions	Leaderboard	Discussions
---------	-------------	-------------	-------------

Submitted 14 minutes ago • Score: 20.00

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		

Submitted Code

Language: C++20

Open in editor

```
1 #include <bits/stdc++.h>
2 using namespace std;
3 int main()
4 {
5     int t;
6     cin >> t;
7
8     for (int i = 0; i < t; i++)
9     {
10         int n;
11         cin >> n;
12         int S, M;
13         cin >> M;
14
15         int ar[n];
16         for (int i = 0; i < n; i++)
17         {
18             cin >> ar[i];
19         }
20
21         S = 1000 - M;
22         bool dp[n + 1][S + 1];
23         dp[0][0] = true;
24         for (int i = 1; i <= S; i++)
25         {
26             dp[0][i] = false;
27         }
28
29         for (int i = 1; i <= n; i++)
30         {
```

```
31     for (int j = 0; j <= S; j++)
32     {
33         if (ar[i - 1] <= j)
34         {
35             bool op1 = dp[i][j - ar[i - 1]];
36             bool op2 = dp[i - 1][j];
37             dp[i][j] = op1 || op2;
38         }
39         else
40         {
41             dp[i][j] = dp[i - 1][j];
42         }
43     }
44 }
45
46 //     for(int i = 0; i<=n; i++)
47 //     {
48 //         for(int j = 0; j<=S; j++)
49 //         {
50 //             cout<<dp[i][j] <<" ";
51 //         }
52 //         cout<<endl;
53 //     }
54
55 //     cout<<endl<<dp[n][S]<<endl;
56
57 if (dp[n][S])
58 {
59     cout << "YES" << endl;
60 }
61 else
62 {
63     cout << "NO" << endl;
64 }
65 }
66 return 0;
67 }
68
```