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Exam Marks

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✔ Test Case #0	✔ Test Case #1	✔ Test Case #2
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Submitted Code

Language: C++20   ⑂ Open in editor

```cpp
#include <bits/stdc++.h>
using namespace std;

int dp[1005][1005];

bool subsetSum(int n, int S, int a[])
{
    if (n == 0)
    {
        if (S == 0)
        {
            return true;
        }

        else
        {
            return false;
        }
    }

    if (dp[n][S] != -1)
    {
        return dp[n][S];
    }

    if (a[n - 1] <= S)
    {
        bool op1 = subsetSum(n - 1, S - a[n - 1], a);
```

```cpp
29          bool op2 = subsetSum(n - 1, S, a);
30
31          return dp[n][S] = op1 or op2;
32      }
33
34      else
35      {
36          return dp[n][S] = subsetSum(n - 1, S, a);
37      }
38 }
39
40 int main()
41 {
42
43      int t;
44      cin >> t;
45
46      for (int k = 0; k < t; k++)
47      {
48
49          int n, target;
50          cin >> n >> target;
51
52          int a[n];
53          for (int i = 0; i < n; i++)
54          {
55              cin >> a[i];
56          }
57
58          int s = 1000 - target;
59          for (int i = 0; i <= n; i++)
60          {
61              for (int j = 0; j <= s; j++)
62              {
63                  dp[i][j] = -1;
64              }
65          }
66
67          if (subsetSum(n, s, a))
68          {
69              cout << "YES" << endl;
70          }
71
72          else
73          {
74              cout << "NO" << endl;
75          }
76      }
77
78      return 0;
79 }
```