

Make It

Problem	Submissions	Leaderboard	Discussions
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Submitted 8 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				

Submitted Code

Language: C++20

Open in editor

```
1 #include <bits/stdc++.h>
2 using namespace std;
3
4 const int N = 1e5 + 7;
5 int dp[N];
6
7 bool knapsack(int n, int S)
8 {
9     if (n == S)
10    {
11        return true;
12    }
13
14    if(n > S)
15    {
16        return false;
17    }
18
19    if(dp[n] != -1)
20    {
21        return dp[n];
22    }
23
24    if (n <= S)
25    {
26        bool choice1 = knapsack(n + 3, S);
27        bool choice2 = knapsack(n * 2, S);
28
29        dp[n] = (choice1 or choice2);
30        return dp[n];
31    }
32 }
```

```
33     return dp[n];
34
35
36 }
37
38 int main()
39 {
40
41     int t;
42     cin >> t;
43
44     while (t--)
45     {
46         int S;
47         cin >> S;
48
49         for(int i = 0; i<=S; i++)
50         {
51             dp[i] = -1;
52         }
53
54         if (knapsack(1, S))
55             cout << "YES" << endl;
56         else
57             cout << "NO" << endl;
58     }
59
60     return 0;
61 }
```