

Solution 1

```
1 // Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 #include <vector>
4 using namespace std;
5
6 // O(nd) time | O(n) space
7 int numberOfWaysToMakeChange(int n, vector<int> denoms) {
8     vector<int> ways(n + 1, 0);
9     ways[0] = 1;
10    for (int denom : denoms) {
11        for (int amount = 1; amount < n + 1; amount++) {
12            if (denom <= amount) {
13                ways[amount] += ways[amount - denom];
14            }
15        }
16    }
17    return ways[n];
18 }
19
```

Solution 1 Solution 2 Solution 3

```
1 #include <vector>
2 using namespace std;
3
4 int numberOfWaysToMakeChange(int n, vector<int> denoms) {
5     // Write your code here.
6     return -1;
7 }
8
```

Run or submit code when you're ready.