

```
1  #include <bits/stdc++.h>
2  using namespace std;
3
4  typedef long long int ll;
5  ll n;
6  int moedas[] = {1,5,10,25,50};
7  ll dp[10][1000010];
8
9  inline ll solve(ll current,ll sum){
10
11     if(sum==0) return 1LL;
12     if(current < 0 or sum<0) return 0LL;
13
14     if(dp[current][sum]!=-1) return dp[current][sum];
15
16     ll ans = solve(current,sum-moedas[current])+solve(current-1,sum);
17
18     return dp[current][sum] = ans;
19 }
20
21
22 main(){
23     ios base::sync with stdio(0);
24     cin.tie(0);
25     memset(dp,-1,sizeof dp);
26     ll ans;
27     while(scanf("%lld",&n)!=EOF){
28         ans = solve(4,n);
29         cout << "There " << (ans==1? "is only ":"are ") << ans << (ans==1? "
30             way":" ways") << " to produce " << n << " cents change." << endl;
31     }
32 }
33
```