

```
1  /** 147 - Dollars:
2  New Zealand currency consists of $100, $50, $20, $10, and $5 notes and $2, $1, 50c,
3  20c, 10c and 5c coins. Given a real number indicating amount (<=$300 & will be a
4  multiple of 5c), determine how many ways that amount may be made up.
5  Changing the order of Listing does not increase the count.
6  */
7  #include<bits/stdc++.h>
8  using namespace std;
9  #define ll long long
10 int a[]={10000, 5000, 2000, 1000, 500, 200, 100, 50, 20, 10, 5};
11 ll dp[11][30005];
12
13 ll fun(int p, int n)
14 {
15     if(n==0)return 1;
16     if(p>10 || n<0)return 0;
17     if(dp[p][n]!=-1)return dp[p][n];
18
19     ll ret=0;
20     if(n-a[p]>=0)ret += fun(p,n-a[p]);
21     ret += fun(p+1,n);
22
23     return dp[p][n] = ret;
24 }
25 int main()
26 {
27     memset(dp,-1,sizeof(dp));
28     double amount;
29     while(scanf("%lf",&amount))
30     {
31         if(amount==0.0)break;
32
33         char input[20];
34         int whole,decimal;
35         sprintf(input, "%.2lf", amount);
36         sscanf(input, "%d.%d", &whole, &decimal);
37         int n = (whole*100)+decimal;
38
39         // int n = (amount*100);
40         // if((n%5) != 0)n++;
41
42         ll way = fun(0,n);
43         printf("%6.2lf%17lld\n",amount,way);
44     }
45     return 0;
46 }
47
48 // (int)(0.29 * 100)=28; (int)(0.57 * 100)=56; (int)(0.58 * 100)=57;
49 // (int)(1.13 * 100)=112; (int)(1.14 * 100)=113; (int)(1.15 * 100)=114;
```