SOAL LATIHAN UTS
Algorithm Design and Analysis

1. Lakukanlah analisis kompleksitas waktu dan memori dari program berikut!

```
int rec(int N){
    if(N == 0) return 1;
    return N * rec(N-1);
}
```

2. Lakukanlah analisis kompleksitas waktu dan memori dari program berikut!

```
int rec(int N){
    if(N == 0) return 1;
    return rec(N-2) * rec(N-2);
}
```

3. Lakukanlah perbandingan soal nomor 1 dan soal nomor 2, mengapa terjadi perbedaan kompleksitas pada soal nomor 1 dan nomor 2.

Case Problem Statements UVA – 674

Suppose there are 5 types of coins: 50-cent, 25-cent, 10-cent, 5-cent, and 1-cent. We want to make changes with these coins for a given amount of money.

For example, if we have 11 cents, then we can make changes with one 10-cent coin and one 1-cent coin, two 5-cent coins and one 1-cent coin, one 5-cent coin and six 1-cent coins, or eleven 1-cent coins. So there are four ways of making changes for 11 cents with the above coins. Note that we count that there is one way of making change for zero cent.

Write a program to find the total number of different ways of making changes for any amount of money in cents. Your program should be able to handle up to 7489 cents.

Inputs
The input file contains any number of lines, each one consisting of a number for the amount of money in cents.

Outputs
For each input line, output a line containing the number of different ways of making changes with the above 5 types of coins.

Sample Inputs	Sample Outputs
11 26	4 13

Solutions

https://ideone.com/y9DiMm