Problem 26: Change for the World

Difficulty: Easy

Originally Published: Code Quest 2016

Problem Background

Some people really like coins. You happen to be one of those people! In a world filled with electronic payments and banking from your cell phone, you prefer to deal exclusively in cold, hard cash - specifically, common coins. However, you are also practical. I mean, paying for your lunch in pennies? That's just silly. In order to strike the right balance of quirky and practical, you need to be able to pay for things using the fewest number of coins possible - and you'll write a program to do just that.

Problem Description

Given a dollar value, you'll need to calculate the minimum number of coins necessary to pay the bill. The coins you'll have available are those most commonly seen in the United States - quarters (worth \$0.25), dimes (worth \$0.10), nickels (worth \$0.05), and pennies (worth \$0.01). For example, a bill of \$0.41 could be paid with as few as four coins - one of each of the types listed above.

Sample Input

The first line of your program's input, received from the standard input channel, will contain a positive integer representing the number of test cases. Each test case will include a single line containing dollar amount to convert to coinage. The amount will start with a dollar sign (\$) and contain two decimal places.

4 \$3.87 \$2.74 \$14.84 \$0.76

Sample Output

For each test case, your program should output the following lines:

- A line containing the dollar amount being converted, as provided in the input
- A line reading "Quarters=X", where X is the number of quarters required
- A line reading "Dimes=X", where X is the number of dimes required
- A line reading "Nickels=X", where X is the number of nickels required
- A line reading "Pennies=X", where X is the number of pennies required

Make sure to include all five lines of output, even if the number of coins of the given type is 0.



\$3.87

Quarters=15

Dimes=1

Nickels=0

Pennies=2

\$2.74

Quarters=10

Dimes=2

Nickels=0

Pennies=4

\$14.84

Quarters=59

Dimes=0

Nickels=1

Pennies=4

\$0.76

Quarters=3

Dimes=0

Nickels=0

Pennies=1