Problem Set 3 Exercise #04: Coins

Reference: Lecture 6 notes

Learning objective: One-dimensional array

Estimated completion time: 25 minutes

Problem statement:

You are given these coin denominations: $1, 50¢, 20¢, 10¢, 5¢ and 1¢. Write a program **PS3_Ex04_Coins.java** to find out the least number of coins needed for a given amount (in dollars) and the number of coins used for each denomination.

Your program should contain a static method

```
int[] computeCoins(double amount, int[] denoms)
```

that returns the number of coins used for each denomination for the given **amount**. The second parameter **demons** is an array of coin denominations {100, 50, 20, 10, 5, 1}.

Sample run #1:

```
Enter amount in dollars: 3
Minimum number of coins needed: 3
Denoms 100c: 3
Denoms 50c: 0
Denoms 20c: 0
Denoms 10c: 0
Denoms 5c: 0
Denoms 1c: 0
```

Sample run #2:

```
Enter amount in dollars: 3.75
Minimum number of coins needed: 6
Denoms 100c: 3
Denoms 50c: 1
Denoms 20c: 1
Denoms 10c: 0
Denoms 5c: 1
Denoms 1c: 0
```