Upload your source code to Canvas using `YourName_Assignment1.cpp` format.

At the beginning of the program, state the assignment number, the purpose of the assignment, the authorship information, and the date the assignment was last edited.

Use short comments throughout your code to document your program. Your code should be easy to read and self-guided.

Each part worth 50 points for a total of 100 points.

For this assignment, you are creating a *coin dispenser machine*.

1- In the first part, the machine asks for the dollar amount of coin change that the user would need. For an input of $5.42 the machine dispenses the following:

- 21 quarters
- 1 dime
- 1 nickel
- 2 pennies

Write a program that would prompt the user to input some value in dollars and cents in the format of $x.xx and figures out the equivalent number of coins.

First convert the input amount into cents : $x.xx * 100

Then decide on the coin designations by following the algorithm below:

$5.42 is equivalent to 542 cents.

First the larger coin, quarters
542 / 25 ----> 21 quarters
542 % 25 ----> 17 cents of change

Next comes dime
17 / 10 ---- > 1 dime
17 % 10 -----> 7 cents of change

After that comes nickels
7 / 5 -----> 1
7 % 5 -------> 2

Finally, pennies
2 pennies are what's left

The next step is displaying the original dollar amount along with the coin designations and their number.

2- Your coin dispenser should also work the other way around, by receiving coins it would determine the dollar value. Write another program that allows the user to enter how many quarters, dimes, nickels, and pennies they have and then outputs the monetary value of the coins in dollars and cents.

For example, if the user enters 4 for the number of quarters, 3 for the number of dimes, and 1 for the number of nickels, then the program should output that the coins are worth $1 dollar and 35 cents.

a) What are inputs to the program? Declare all the input values as appropriate types
b) Create a prompting message to prompt the user to input their coin denominations.
c) What's the expected output? Declare appropriate variables for to store the results.
d) What's the algorithm to solve the problem? How do you relate the inputs to the output?
    - Make use of the arithmetic operators to solve this problem.
    - To separate the dollars and cents use the % and / operator respectively. For the above example 135 cents: 135 / 100 = 1 (dollars) and 135 % 100 = 35 (cents).
e) Display the outputs in an informative manner.

It's ok to write both programs in the same source file under the main function consecutively. We can comment out one part to test the other part.

HAVE FUN!