Question 1

The purpose of this question is to write a python program (script) that is given an amount in pennies and converts it to an equivalent amount in dollars, quarters, dimes, nickels and pennies. There are 100 pennies in a dollar, 25 pennies in a quarter, 10 pennies in a dime and 5 pennies in a nickel.

Use *input* to input the number of pennies from the user.

For example if the amount is 968 pennies then the equivalent amount is
9 dollars + 2 quarters + 1 dime + 1 nickel + 3 pennies.
That is 968 = 9*100+ 2*25 + 1*10 + 1*5 + 3.

In order to compute the equivalent amount first determine how many dollars are in the original amount expressed in pennies. There will be some pennies leftover. Determine how many quarters are in the leftover pennies. There will be some pennies leftover. Determine how many dimes are the leftover pennies. There will be some pennies leftover. Determine how many nickels are in the leftover pennies. There will be some pennies leftover. "How many" and "leftover" were covered in the week 1 lecture notes.

A sample run of the program for 968 pennies is shown below.

Enter the number of pennies: **968**

968 pennies is equivalent to:
9 dollars +
2 quarters +
1 dimes +
1 nickels +
3 pennies

Question 2

The purpose of this question is to write a python program (script) to convert a weight given in pounds and ounces to a weight in kilograms.

There are 16 ounces to a pound. There are 2.2046 pounds to a kilogram or 35.2736 ounces to a kilogram.

In a loop use input to request the number of pounds and the number of ounces from the user (see the sample shown below). The number of pounds must be an integer, and the number of ounces must be a real number. Convert the weight expressed in pounds and ounces into a weight expressed in kilograms. Exit from the loop if the user enters -1 as the number of pounds.

A sample run of the program is shown below.

Enter the integer number of pounds (<0 to quit): **0**

Enter the number of ounces as a real number: **7.5**

The number of kilograms for 0 pounds and 7.500000 ounces is 0.2126

Enter the integer number of pounds (<0 to quit): **5**

Enter the number of ounces as a real number: **2.25**

The number of kilograms for 5 pounds and 2.250000 ounces is 2.3318

Enter the integer number of pounds (<0 to quit): **-1**