Programming Assignment 3

1. Write a function, called **calcSum**, that takes 3 integer values as arguments : **a, b** and **c.** The function must return their sum. However, if one of the values is a duplicate, it does not count towards the sum. Cannot use the built-in function sum().
   For example 2, 4, 5 returns 11 ; 2, 2, 5 returns 7 and 1, 1, 1 returns 1. (20 points)

2. Write a function, called **intDiff**, that takes 3 integer values as arguments : **a, b** and **c**, return **True** if one of **b or c** differs from **a** by at most 1, while the other differs from both other values by 2 or more.
   For example, 1, 2, 9 returns True because 2 (which is b) differs from 1 (which is a) by 1 and 9 (which is c) differs from both 1 (a) and 2 (b) by more than 2, while 1, 2, 3 returns False. (20 points)
   Hint: abs(num) computes the absolute value of a number.

3. Write a function, called **multTable**, that takes an integer as an argument and uses a for-loop to print out the multiplication table for that number from 1 up to and including 12. (15 points)
   For example if the input is 4 then the function prints:

   4 x 1 = 4
   4 x 2 = 8
   ...
   4 x 12 = 48

4. Write a function, called **numToWords**, that takes an integer as a parameter and prints its digits as words. Cannot use list functionalities nor dictionaries. (20 points)
   For example, if the input value is 3451 then the program prints: three four five one.
   Return the string and store it in a variable called **numAsString**.

5. Write a function, called **userMeasurements**, that takes no arguments and asks the user's height (in inches), weight (in pounds), and age (in years), then computes one of the clothing sizes according to the following formulas: (25 points)
   a. Hat size = weight in pounds divided by height in inches and all that multiplied by 2.9, return that value and store it in a variable called **hatSize**.
   b. Jacket size (chest in inches) = height times weight divided by 288 and then adjusted by adding one-eighth of an inch for each 10 years over age 30. (Note that the adjustment only takes place after a full 10 years. So, there is no adjustment for age 30 through 39, but one-eight of an inch is added for age 40), return that value and store it in a variable called **jacketSize**.
   c. Waist in inches = weight divided by 5.7 and then adjusted by adding one-tenth of an inch for each 2 years over age 28. (Note that the adjustment only takes place after full 2 years. So there is no adjustment for age 29, but one-tenth of an inch is added for age 30.), return that value and store it in a variable **waistSize**.
   d. Use a function for each calculation, called **hSize**, **jSize** and **wSize**. Your program should allow the user to repeat this calculation as often as the user wishes. Answers should be rounded to 2 decimal places, i.e. 2.348 —> 2.35