TASK SHEET

**Variables, Expressions, and Statements**

1. Write a Python program to calculate the simple interest given the principal, rate, and time.
2. Write a Python program to convert a given number of seconds into hours, minutes, and seconds.
3. Write a Python program to calculate the area of a triangle given its base and height.
4. Write a Python program that asks the user for their name and age, and then prints a message saying how old they will be in 10 years.
5. Write a Python program to calculate the distance between two points (x1, y1) and (x2, y2).

**Conditional Execution**

1. Write a Python program that takes a number as input and prints whether it is positive, negative, or zero.
2. Write a Python program to find the largest of three numbers.
3. Write a Python program that checks whether a given year is a leap year.
4. Write a Python program to check if a given number is even or odd.
5. Write a Python program that takes a character as input and checks if it is a vowel or consonant.

**Functions**

1. Write a function that takes two strings and returns True if they are anagrams, otherwise False.
2. Write a function that takes a list of numbers and returns their average.
3. Write a function that takes a list of strings and returns the longest string.
4. Write a function that takes a number and returns its factorial using recursion.
5. Write a function that takes a list and returns a new list with unique elements (removes duplicates).

**Loops and Iteration**

1. Write a Python program to print the multiplication table of a given number using a for loop.
2. Write a Python program that prints all the prime numbers between 1 and 100.
3. Write a Python program to find the sum of all odd numbers between 1 and 100.
4. Write a Python program to print numbers from 1 to 100, but for multiples of 3 print "Fizz" instead of the number and for the multiples of 5 print "Buzz". For numbers which are multiples of both three and five print "FizzBuzz".
5. Write a Python program to find the sum of the digits of a number using a while loop.

**Strings**

1. Write a Python program to count the number of words in a given string.
2. Write a Python program to find the longest word in a given string.
3. Write a Python program to check if a given string is a valid email address.
4. Write a Python program to remove all the punctuations from a given string.
5. Write a Python program to convert a string to title case (first letter of each word capitalized).