Function Assignment - 1

Q1. Write a Python function to find the maximum of three numbers

Q2. Write a Python function that takes a number as a parameter and checks whether the number is prime or not.

Q3. Write a Python function that takes a list and returns a new list with distinct elements from the first list.

Sample List: [1,2,3,3,3,3,4,5]
Unique List: [1, 2, 3, 4, 5]

Q4. Write a function intreverse(n) that takes as input a positive integer n and returns the integer obtained by reversing the digits in n.

Here are some examples of how your function should work.

Test Case 1:

Input: intreverse(546)

Output: 645

Test Case 2:

Input: intreverse(3)

Output: 3

Q5. Write a function sumprimes(l) that takes as input a list of integers l and retuns the sum of all the prime numbers in l.

Here are some examples to show how your function should work.

Test Cases:

Input: sumprimes([3,3,1,13])
Output: 19
Input: sumprimes([2,4,6,9,11])
Output: 13

Q6. Write a function that calculates the nth terms in an arithmetic sequence, which takes first term, common difference and value of n as an argument and default value of n is 10.

Q7. Create a function that returns the list of factorials of each element of a given list as argument.

Test Case 1:

Input as argument: [2,3,4,5]
Ouput: [2, 6, 24, 120]

Q8. Write a python function that accepts a list of numbers and returns the sum of the squares of only the prime numbers.

Q9. Write a function list_intersection(list1, list2) that returns a list of elements that are present in both list1 and list2

Q10. Write a Python function that takes a list of strings as input and returns a tuple containing the shortest and longest word from the list, in that order. If there are multiple words of the same shortest or longest length, return the first shortest/longest word found.
Input:-
words = ["apple", "banana", "kiwi", "grapefruit", "orange"]
Output:- ('kiwi', 'grapefruit')