

## Function Assignment - 2

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 returns 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 `n`th 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]`

Output: `[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')`