

Assignment-2

1. Write a function to check if a number is prime.
2. Create a function to calculate the area of a rectangle.
3. Create a function to find the maximum of three numbers.
4. Write a function to reverse a string.
5. Create a function to count the number of vowels in a string.
6. Write a function to check if a string is a palindrome.
7. Create a function to calculate the sum of a list of numbers.
8. Write a function to return the Fibonacci sequence up to n terms.
9. Write a function to convert Celsius to Fahrenheit.
10. Write a function to find the minimum value in a list.
11. Create a function to count how many times a character appears in a string.
12. Write a function to check if a number is a perfect number.
13. Create a function to find the sum of digits of a number.
14. Write a function that takes a string and returns a dictionary of character frequencies.
15. Write a function that returns the average of a list of numbers.
16. Create a function that accepts a number and prints its multiplication table.
17. Write a function that accepts a list and returns the list in reverse order.
18. Write a function to find the second largest number in a list.
19. Create a function that accepts a list of integers and returns only the even ones.
20. Write a function to check if all characters in a string are unique.
21. Create a function to calculate the greatest common divisor (GCD) of two numbers.
22. Write a function to find the least common multiple (LCM) of two numbers.
23. Create a function to remove duplicates from a list.
24. Write a recursive function to compute the factorial of a number.
25. Create a function that checks if a number is an Armstrong number.
26. Write a function that returns all prime numbers up to n.
27. Create a function that accepts a sentence and returns the longest word.
28. Write a function to compute the power of a number using recursion.
29. Create a function that flattens a nested list.
30. Write a function to check if a list is sorted.
31. Create a function to merge two sorted lists into one sorted list.
32. Write a function to find the most frequent element in a list.

33. Create a function that returns the median of a list.
34. Create a function that finds the intersection of two lists.
35. Write a function that accepts variable number of arguments and returns their product.
36. Write a function that returns a list of tuples (element, index) from a list.
37. Create a function that accepts a string and returns a dictionary of word counts.
38. Write a function that checks if a sentence is a pangram.
39. Create a function that accepts a list and a value, and returns the index of the value (or -1).
40. Write a function that counts the number of uppercase and lowercase characters in a string.