1. Maximum of Three Numbers

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

2. Sum All Numbers in a List

Write a Python function to sum all the numbers in a list.

Sample List: (8, 2, 3, 0, 7)  
Expected Output: 20

3. Multiply All Numbers in a List

Write a Python function to multiply all the numbers in a list.

Sample List: (8, 2, 3, -1, 7)  
Expected Output: -336

4. Reverse a String

Write a Python program to reverse a string.

Sample String: "1234abcd"  
Expected Output: "dcba4321"

5. Factorial of a Number

Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.

6. Check if a Number Falls Within a Given Range

Write a Python function to check whether a number falls within a given range.

7. Count Uppercase and Lowercase Letters in a String

Write a Python function that accepts a string and counts the number of upper and lower case letters.

Sample String: 'The quick Brow Fox'  
Expected Output:  
No. of Upper case characters : 3  
No. of Lower case Characters : 12

8. Return a New List with Distinct Elements from a List

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]

9. Check Whether a Number is Prime

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

Note: A prime number is a natural number greater than 1 and that has no positive divisors other than 1 and itself.

10. Print Even Numbers from a Given List

Write a Python program to print the even numbers from a given list.

Sample List: [1, 2, 3, 4, 5, 6, 7, 8, 9]  
Expected Result: [2, 4, 6, 8]

11. Check if a Number is Perfect

Write a Python function to check whether a number is "Perfect" or not.

Example: The first perfect number is 6, because 1, 2, and 3 are its proper positive divisors, and 1 + 2 + 3 = 6.  
The next perfect number is 28 = 1 + 2 + 4 + 7 + 14.

12. Check if a String is a Palindrome

Write a Python function that checks whether a passed string is a palindrome or not.

Note: A palindrome is a word, phrase, or sequence that reads the same backward as forward.  
Example: madam or nurses run.

13. Print the First n Rows of Pascal's Triangle

Write a Python function that prints out the first n rows of Pascal's triangle.

Note: Each number is the sum of the two numbers directly above it.

14. Check if a String is a Pangram

Write a Python function to check whether a string is a pangram or not.

Example: "The quick brown fox jumps over the lazy dog"

15. Sort Hyphen-Separated Sequence of Words Alphabetically

Write a Python program that accepts a hyphen-separated sequence of words as input and prints the words in a hyphen-separated sequence after sorting them alphabetically.

Sample Items: green-red-yellow-black-white  
Expected Result: black-green-red-white-yellow

16. Create and Print a List of Squares for Numbers 1 to 30

Write a Python function to create and print a list where the values are the squares of numbers between 1 and 30 (both included).

17. Create a Chain of Function Decorators (Bold, Italic, Underline, etc.)

Write a Python program to create a chain of function decorators (bold, italic, underline etc.).

18. Execute a String Containing Python Code

Write a Python program to execute a string containing Python code.

19. Access a Function Inside a Function

Write a Python program to access a function inside a function.

20. Detect the Number of Local Variables Declared in a Function

Write a Python program to detect the number of local variables declared in a function.

Sample Output: 3

21. Invoke a Function After a Specified Period of Time

Write a Python program that invokes a function after a specified period of time.

Sample Output:  
Square root after specific milliseconds:  
4.0  
10.0  
158.4297951775485