

## Python Functions

1. Write a Python function to find the maximum of three numbers.
2. Write a Python function to multiply all the numbers in a list.  
*Sample List : (8, 2, 3, -1, 7)*
3. Write a Python function to calculate the factorial of a number (a non-negative integer). The function accepts the number as an argument.
4. Write a Python function that accepts a string and counts the number of upper and lower case letters.
5. Write a Python function that takes a list and returns a new list with distinct elements from the first list.
6. Write a Python program to access a function inside a function.
7. Explain the concept of variable scope in Python and provide an example demonstrating local and global variables within functions.
8. Define a function called power that calculates the power of a number. The function should have two parameters: base and exponent, with the default value of exponent set to 2.
9. Write a Python program to create a function that takes one argument, and that argument will be multiplied with an unknown given number.
10. Write a Python program to filter a list of integers using Lambda.