

1. Python Program for nth multiple of a number in Fibonacci Series

Given two integers n and k. Find position the nth multiple of K in the Fibonacci series.

Examples:

Input: k = 2, n = 3

Output: 9, 3rd multiple of 2 in Fibonacci Series is 34 that appears at position 9.

Input: k = 4, n = 5

Output: 30, 5th multiple of 5 in Fibonacci Series is 832040 which appears at position 30.

2. Sort the values of first list using second list in Python

Given two lists, sort the values of one list using the second list.

Examples:

Input : list1 = ["a", "b", "c", "d", "e", "f", "g", "h", "i"]

list2 = [0, 1, 1, 0, 1, 2, 2, 0, 1]

Output : ['a', 'd', 'h', 'b', 'c', 'e', 'i', 'f', 'g']

Input : list1 = ["g", "e", "e", "k", "s", "f", "o", "r", "g", "e", "e", "k", "s"]

list2 = [0, 1, 1, 0, 1, 2, 2, 0, 1]

Output : ['g', 'k', 'r', 'e', 'e', 'g', 's', 'f', 'o']

3. Maximum and Minimum K elements in Tuple

Input : test_tup = (3, 7, 1, 18, 9), k = 2

Output : (3, 1, 9, 18)

Input : test_tup = (3, 7, 1), k=1

Output : (1, 7)

4. program to find N largest elements from a list:

Given a list of integers, the task is to find N largest elements assuming size of list is greater than or equal to N.

Input : [4, 5, 1, 2, 9]

N = 2

Output : [9, 5]

```
Input : [81, 52, 45, 10, 3, 2, 96]
        N = 3
Output : [81, 96, 52]
```

5. Remove multiple elements from a list in Python

Given a list of numbers, write a Python program to remove multiple elements from a list based on the given condition.

```
Input: [12, 15, 3, 10]
Output: Remove = [12, 3], New_List = [15, 10]
```

```
Input: [11, 5, 17, 18, 23, 50]
Output: Remove = [1:5], New_list = [11, 50]
```

6. Program to Count Number of Lowercase Characters , uppercase characters and spaces in a String:

7. Program to find Permutation of a given string using inbuilt function

A permutation, also called an “arrangement number” or “order”, is a rearrangement of the elements of an ordered list S into a one-to-one correspondence with S itself. A string of length n has $n!$ permutation. Examples:

```
Input : str = 'ABC'
Output : ABC
        ACB
        BAC
        BCA
        CAB
        CBA
```

8. Program to Count the Number of matching characters in a pair of string

Given a pair of non-empty strings. Count the number of matching characters in those strings (consider the single count for the character which have duplicates in the strings).

Examples:

```
Input : str1 = 'abcdef'
        str2 = 'defghia'
Output : 4
(i.e. matching characters :- a, d, e, f)
```

```
Input : str1 = 'aabcddek1112@'
        str2 = 'bb2211@55k'
Output : 5
(i.e. matching characters :- b, 1, 2, @, k)
```