

**Iterative Statements:**

**Sum of Even Numbers in a Range:**

Write a Python program that calculates the sum of all even numbers between 1 and n (where n is a user input).

**Reverse a String:**

Write a Python program that reverses a string entered by the user without using the built-in reverse() function. Use a for loop to reverse the string.

**Prime Number Range:**

Write a Python program that prints all prime numbers between two numbers, start and end, inclusive. The user should input start and end.

**Count Vowels in a String:**

Write a Python program that counts the number of vowels ('a', 'e', 'i', 'o', 'u') in a string provided by the user.

**Multiples of 7 in a Range:**

Write a Python program that prints all multiples of 7 from 1 to n, where n is a number entered by the user.

**Create a Number Pyramid:**

Write a Python program that takes an integer n as input and prints a number pyramid pattern of height n. For example, for n = 4, it should print:

```
1  
1 2  
1 2 3  
1 2 3 4
```

**Sum of Odd Numbers in a List:**

Write a Python program that takes a list of integers and calculates the sum of all odd numbers in the list.

**Count Digits in a Number:**

Write a Python program that takes a number and counts how many digits it has. For example, if the input is 12345, the output should be 5.

**Guess the Number Game (Updated Version):**

Write a Python program that picks a random number between 1 and 100 and asks the user to guess the number. The program should provide hints like "Too high" or "Too low" until the user guesses correctly. Use a while loop to continue the guessing process.

**Find the Factorial Using for Loop:**

Write a Python program that calculates the factorial of a number using a for loop.

**Check if All Elements in a List are Even:**

Write a Python program that checks if all elements in a list of numbers are even. Use a for loop to iterate through the list.

**Multiplication of Elements in a List:**

Write a Python program that takes a list of integers and calculates the product of all elements in the list.

**Find Common Elements in Two Lists:**

Write a Python program that takes two lists and prints the common elements between them.

**Generate the Fibonacci Sequence up to n Terms:**

Write a Python program that generates the Fibonacci sequence up to n terms, where n is a number entered by the user.

Count Negative Numbers in a List:

Write a Python program that takes a list of integers and counts how many negative numbers are present in the list.

Sum of Numbers:

Write a Python program that takes an integer n as input and calculates the sum of all integers from 1 to n using a for loop.

Factorial Calculation:

Write a Python program that takes a number n as input and calculates its factorial using a while loop.

Fibonacci Sequence:

Write a Python program that prints the first n numbers of the Fibonacci sequence, where n is given as input by the user. Use a for loop.

Print Multiplication Table:

Write a Python program that takes an integer n as input and prints its multiplication table (up to 10) using a for loop.

Count Even and Odd Numbers:

Write a Python program that takes a list of integers and uses a for loop to count how many are even and how many are odd.

Sum of Digits:

Write a Python program that takes a number as input and calculates the sum of its digits. Use a while loop to extract each digit.

Prime Numbers within a Range:

Write a Python program that prints all the prime numbers between 1 and n, where n is given as input by the user.

```
pattern
1
1 2
1 2 3
1 2 3 4
```

Check for Palindrome:

Write a Python program that takes a string as input and uses a for loop to check if the string is a palindrome (reads the same forward and backward).

Multiples of a Number:

Write a Python program that takes an integer n and prints all the multiples of n between 1 and 100 using a for loop.

Reverse List:

Write a Python program that reverses a given list using a for loop. (You can modify the list in place.)

Square of Numbers:

Write a Python program that takes a number n as input and prints the square of all numbers from 1 to n using a for loop.

Guess the Number:

Write a Python program where the user has to guess a number between 1 and 100. The program should give hints if the guess is too high or too low until the user guesses the correct number. Use a while loop to continue the guessing process.

Find the Largest Number in a List:

Write a Python program that takes a list of numbers and uses a for loop to find and print the largest number in the list.

Summing Numbers from a List:

Write a Python program that takes a list of numbers and calculates their sum using a for loop.