```
print("Table of 5:")
for i in range(1, 11):
    print(f"5 x {i} = {5 * i}")
```

```
Table of 5:
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
5 x 5 = 25
5 x 6 = 30
5 x 7 = 35
5 x 8 = 40
5 x 9 = 45
5 x 10 = 50
```

```
n = int(input("\nEnter the number of even numbers to print: "))
print("Even number series:")
for i in range(1, n + 1):
    print(i * 2)
```

```
Enter the number of even numbers to print: 2
Even number series:
2
4
```

```
my_list = ["apple", "banana", "cherry"]
print("\nItems in the list:")
for item in my_list:
    print(item)
```

```
Items in the list:
apple
banana
cherry
```

```
total_sum = sum(range(1, 11))
print("\nSum of numbers from 1 to 10:", total_sum)
```

```
Sum of numbers from 1 to 10: 55
```

```
rows = 5
for i in range(1, rows + 1):
    print(" " * (rows - i) + "*" * (2 * i - 1))
```

```
    *
   ***
  *****
 *******
*********
```

```
print("\nFirst 10 natural numbers:")
for i in range(1, 11):
    print(i)
```

```
First 10 natural numbers:
1
2
3
4
5
6
7
8
9
10
```

```
string = input("\nEnter a string to check if it's a palindrome: ")
if string == string[::-1]:
```

```
    print("The string is a palindrome.")
else:
    print("The string is not a palindrome.")
```

```
Enter a string to check if it's a palindrome: 145
The string is not a palindrome.
```

```
num = int(input("\nEnter a number to check if it's an Armstrong number: "))
sum_of_digits = sum(int(digit) ** len(str(num)) for digit in str(num))
if num == sum_of_digits:
    print("The number is an Armstrong number.")
else:
    print("The number is not an Armstrong number.")
```

```
Enter a number to check if it's an Armstrong number: 134
The number is not an Armstrong number.
```

```
print("\nFibonacci series between 0 and 50:")
a, b = 0, 1
while a <= 50:
    print(a, end=" ")
    a, b = b, a + b
```

```
Fibonacci series between 0 and 50:
0 1 1 2 3 5 8 13 21 34
```

```
import re

password = input("\nEnter a password: ")

if (len(password) >= 8 and
    re.search("[a-z]", password) and
    re.search("[A-Z]", password) and
    re.search("[0-9]", password) and
    re.search("[@#$%^&+=]", password)):
    print("Password is valid.")
else:
    print("Password is invalid.")
```

```
Enter a password: priyabhagat
Password is invalid.
```

```
num = int(input("\nEnter a number to find its factorial: "))
factorial = 1
for i in range(1, num + 1):
    factorial *= i
print("Factorial:", factorial)
```

```
Enter a number to find its factorial: 5
Factorial: 120
```

```
num = int(input("\nEnter a number to check if it's prime: "))
if num > 1:
    for i in range(2, int(num ** 0.5) + 1):
        if num % i == 0:
            print("The number is not prime.")
            break
    else:
        print("The number is prime.")
else:
    print("The number is not prime.")
```

```
Enter a number to check if it's prime: 13
```

```
The number is prime.
```

```
rows = 5
for i in range(1, rows + 1):
    print(" ".join(str(j) for j in range(1, i + 1)))
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
rows = 5
char = 65
for i in range(1, rows + 1):
    for j in range(i):
        print(chr(char), end=" ")
        char += 1
    print()
```

```
A
B C
D E F
G H I J
K L M N O
```

```
rows = 5
for i in range(1, rows + 1):
    print(" " * (rows - i) + "*" * (2 * i - 1))
```

```
    *
   ***
  *****
 *******
*********
```