1. **program to display the multiplication table of a given number.**

for eg:n=5

1 x 5= 5

2 x 5 = 10

....

10 x 5 =50

```
a= int(input("Enter the number"))
for i in range(1,11):
    print(f'{i}x{a} = {a*i}')
```

```
Enter the number5
1x5 = 5
2x5 = 10
3x5 = 15
4x5 = 20
5x5 = 25
6x5 = 30
7x5 = 35
8x5 = 40
9x5 = 45
10x5 = 50
```

2. **program to display the factorial of a number**

for eg: 5!->5*4*3*2*1

```
a= int(input("Enter the number"))
'''factorial is 5*4*3*2*1'''
multiply = 1
copy_a = a
'''creating a copy because I was using the number in print
    statement'''
while(copy_a>0):
    multiply = multiply * copy_a
    copy_a=copy_a-1
print(f'Factorial of {a} is: {multiply}')
```

```
Enter the number5
Factorial of 5 is: 120

=== Code Execution Successful
```

3. **program to check whether the given number is prime or not**

```
a = int(input("Enter the number: "))
if a <= 1:
    print("Not prime")
else:
    for i in range(2, a):
        if a % i == 0:
            print("Not prime")
            break
    else:
        print("Prime number")
```

```
Enter the number: 10
Not prime

=== Code Execution S
```

4. **program to print the numbers from N to 1.**

```
a = int(input("Enter the number: "))
while a > 0:
    print(a)
    a -= 1
```

```
Enter the number: 5
5
4
3
2
1
```

5. **program to check whether the given number is palindrome or not using while loop.**

```
num = int(input("Enter a number: "))
original = num #creating copy of number
reverse = 0

while num > 0:
    digit = num % 10  # Extracting the last digit using
        modulus
    reverse = reverse * 10 + digit  # inserting the extracted
        digit to reverse number
    num = num // 10  # Removing the last digit from num

if original == reverse:
    print(f"{original} is a palindrome.")
else:
    print(f"{original} is not a palindrome.")
```

```
Enter a number: 13331
13331 is a palindrome.

=== Code Execution Succe
```

6. **program to find the sum of digits of a given number using while loop.**

```
num = int(input("Enter a number: "))
num1=num #creating copy
summ = 0
while(num1>0):
    digit = num1%10
    summ = summ + digit
    num1 = num1//10
print(f'Sum of {num} is {summ}')
```

```
Enter a number: 2500
Sum of 2500 is 7

=== Code Execution Suc
```