PROGRAM NO 1

```
def function():
    num = int(input("Enter a number: "))
    factorial = 1
    i = 1
    while i <= num:
        factorial = factorial * i
        i = i + 1
    print("The factorial of ", num, "is",
factorial)
function()
```

OUTPUT

```
Enter a number: 5
The factorial of  5 is 120

Process finished with exit code 0
```

PROGRAM NO 2

```
# PROGRAM TO PRINT THE TABLE OF A NUMBER

number = int(input("Enter a number: "))
x = 1
while x <= 10:
```

```
    number = number*1
    print(number, "x",x,"=", number*x)
    x += 1
```

OUTPUT

```
Enter a number: 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

Process finished with exit code 0
```

PROGRAM NO 3

```
choice = "y"
while choice == "y":

    def multiplication(x, y):
        return x * y
```

```
    def addition(x, y):
        return x + y


    def subtraction(x, y):
        return x - y


    def division(x, y):
        return x / y


    num1 = int(input("Enter number : "))
    num2 = int(input("Enter second number
: "))
    print("For Addition          press 1")
    print("For subtraction       press 2")
    print("For multiplication    press 3")
    print("For division          press 4")
    choice = int(input("operation :"))
    if choice == 1:
        print("Addition", addition(num1,
num2))
    elif choice == 2:
        print("Subtraction",
subtraction(num1, num2))
    elif choice == 3:
        print("Multiplication",
```

```
multiplication(num1, num2))
    elif choice == 4:
        print("Division", division(num1,
num2))
    choice = input("Do you wish to
continue (y/n)")
    if choice == "n":
        break
```

OUTPUT

```
Enter number : 2
Enter second number : 3
For Addition          press 1
For subtraction       press 2
For multiplication    press 3
For division          press 4
operation :1
Addition 5
Do you wish to continue (y/n)n

Process finished with exit code 0
```

PROGRAM 4

```
a = int(input("Enter first number"))
b = int(input("Enter second number"))
```

```
def lcm(x, y):
    large = max(a, b)
    minimum = min(a, b)
    i = large
    while (1):
        if (i % minimum ==0):
            return i
        i = i + large


print("The lcm of ", a, "and", b, "is ",
lcm(a,b))
```

OUTPUT 4

```
Enter first number12
Enter second number6
The lcm of  12 and 6 is  12

Process finished with exit code 0
```

```
Enter first number10
Enter second number20
The lcm of  10 and 20 is  20

Process finished with exit code 0
```

PROGRAM NO 5

```
a = x = int(input("Enter first number"))
b = y = int(input("Enter second number
"))
def gcd(x, y):

    while x != y:
        if x > y:
            x = x - y
        else:
            y = y - x

    print("HCF of ", a, "and", b, "is",
x)
gcd(x,y)
```

OUTPUT:

```
Enter first number10
Enter second number 20
HCF of  10 and 20 is 10

Process finished with exit code 0
```

```
Enter first number12
Enter second number 16
HCF of  12 and 16 is 4

Process finished with exit code 0
```