**1.Program to print factorial of a number.**

num = int(input("Enter a number: "))

factorial = 1

for i in range(1, num + 1):

factorial \*= i

print("Factorial of", num, "is", factorial)

**output:** Enter a number: 5

Factorial of 5 is 120

**2.Program to print Factors of number.**

num = int(input("Enter a number: "))

print("Factors of", num, "are:")

for i in range(1, num + 1):

if num % i == 0:

print(i)

**output:** Enter a number: 12

1

2

3

4

6

12

**3.Program to print perfect number.**

num = int(input("Enter a number: "))

sum\_of\_divisors = 0

for i in range(1, num):

if num % i == 0:

sum\_of\_divisors += i

if sum\_of\_divisors == num:

print(num, "is a Perfect Number")

else:

print(num, "is not a Perfect Number")

**output:** Enter a number: 6

6 is perfect number

**4.Program to print perfect square.**

import math

num = int(input("Enter a number: "))

sqrt\_num = int(math.sqrt(num))

if sqrt\_num \* sqrt\_num == num:

print(num, "is a Perfect Square")

else:

print(num, "is not a Perfect Square")

**output:** Enter a number: 25

25 is a perfect square

**5.Program to print harshad number.**

num = int(input("Enter a number: "))

digit\_sum = sum(int(digit) for digit in str(num))

if num % digit\_sum == 0:

print(num, "is a Harshad Number")

else:

print(num, "is not a Harshad Number")

**outpt:** Enter a number: 18

18 is a Harshed number