

1. Factorial of a number

```
num = 7
num = int(input("Enter a number: "))
factorial = 1
if num < 0:
    print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
    print("The factorial of 0 is 1")
else:
    for i in range(1,num + 1):
        factorial = factorial*i
    print("The factorial of",num,"is",factorial)
```

2. Fibonacci series of n terms

```
if nterms <= 0:
    print("Please enter a positive integer")
elif nterms == 1:
    print("Fibonacci sequence upto",nterms,":")
    print(n1)
else:
    print("Fibonacci sequence:")
    while count < nterms:
        print(n1)
        nth = n1 + n2

        n1 = n2
        n2 = nth
        count += 1
```

3. Sum of all terms in a list

```
total = 0

list1 = [11, 5, 17, 18, 23]

for ele in range(0, len(list1)):
    total = total + list1[ele]

print("Sum of all elements in given list: ", total)
```

4. Even square

```
def squareSum( n ):
    sum = 0
    for i in range (0, n + 1):
        sum += (2 * i) * (2 * i)

    return sum

ans = squareSum(8)
print (ans)
```

5. Pyramid

```
def contnum(n):
    num = 1
    for i in range(0, n):
        num = 1
        for j in range(0, i+1):
            print(num, end=" ")
            num = num + 1
        print("\r")

n = 5

contnum(n)
```