1**. Summation of two numbers**

first\_number=int(input("Enter your First Number:"))

secend\_number=int(input("Enter your Second Number:"))

Addition = first\_number + secend\_number

print(Addition)

Subtraction = first\_number - secend\_number

print(Subtraction)

Multiplication = first\_number \* secend\_number

Division = first\_number / secend\_number

Modulus= first\_number % secend\_number

2. **Area of triangle**

import math

a = int(input("Enter the first side length:"))

b = int(input("Enter the secend side length:"))

c = int(input("Enter the therd side length:"))

s = a+b+c/2

triangle = math.sqrt(s\*(s-a)\*(s-b)\*(s-c))

print("The triangle is " , triangle )

3. **Area of a circle**

import math

a = int(input("Enter the circle R length:"))

circle = math.pi\*(a\*a)

print("The circle area is :" , circle)

4. **Roots of quadratic equation**

import math

a=int(input("Enter The Value Of A:"))

b=int(input("Enter The Value Of B:"))

c=int(input("Enter The Value Of C:"))

d=b\*b-4\*a\*c

if (d==0):

    X=-b/(2\*a)

    print(X)

elif (d>0):

    x1=(-b+math.sqrt(d))/(2\*a)

    x2=(-b-math.sqrt(d))/(2\*a)

    print(x1,x2)

else :

    print("The Roots are not real")

5. **prime number**

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

for i in range (2, num):

if (num % i == 0)

print("This is not prime number")

break

else:

print("This is prime number")

6. **factorial value of number**

n=int(input("Enter The Value Of N:"))

fact=1

for mo in range(1,n+1):

    fact=fact\*mo

    print("The Factorial Is :",fact)

7. **Fibonacci series**

num\_terms = int(input("Enter the number of terms for Fibonacci series: "))

a, b = 0, 1

print("Fibonacci Series:")

for \_ in range(num\_terms):

    print(a, end=" ")

    a, b = b, a + b

8. **Maximum number among the three number**

a=int(input("Enter The Value Of A:"))

b=int(input("Enter The Value Of B:"))

c=int(input("Enter The Value Of C:"))

if (a > b and a > c):

    print("The bigest Value Is A")

elif (b > c and b > a):

    print("The Big bigest Is B")

else :

    print("The bigest  Value Is C")

9. **Grade system**

mark=int(input("Enter The Mark:"))

if (mark>=80 and mark<=100):

    grade="A+"

elif (mark>=70 and mark<=79):

    grade="A"

elif (mark>=60 and mark<=69):

    grade="A-"

elif (mark>=50 and mark<=59):

    grade="B"

elif (mark>=45 and mark<=49):

    grade="C"

elif (mark>=40 and mark<=44):

    grade="D"

else:

    grade="Fail"

print(grade)

10. **series number equation**

x =int(input("Enter The Value of N:"))

sum = 0

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

    sum = sum + i

print(sum)

11. **series odd number equation**

n = int(input("Enter a positive even integer (n): "))

sum = 0

for i in range(2,n+1,2):

    sum = sum + i

print(sum)

12. **series 5 modules 0 number equation**

n = int(input("Enter a positive integer (n): "))

sum= 0

for i in range(5,n+1, 5):

    sum = sum + i

print(sum)

13. **100 + 90 + 80 +…….+n equation**

n = int(input("Enter a positive integer (n): "))

sum = 0

for i in range(100,n-1, -10):

    print(i)

    sum = sum +i

print(sum)

14. 12+ 22+ 32 + 42+……….+ n2

n = int(input("Enter The Number of N:"))

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

    squire= i\*\*2

   print(squire)

15. 13+ 23+ 33 + 43+……….+ n3

n = int(input("Enter The Number  of N :"))

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

    quibe= i\*\*3

    print(quibe)

16. **1+ ½ + 1/3 +…………+ 1/n**

n = int(input("Enter The value of N:"))

add = 0

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

    i = 1/i

    add += i

print(add)

17. **1+ 1/22+ 1/32 +…………+ 1/n2**

n = int(input())

add = 0

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

    sum = 1/i\*\*2

    add = add + sum

print(add)

18. **Print Hello World**

frist\_code = str(input("Write here :"))

print(frist\_code)

19. **Find ascii value of character**

char = input("Enter a character: ")

convert = ord(char)

print(convert)

20. **Checking for vowel**

char = input("Enter a character: ")

arr = ["a","e","i","o","u","A","E","I","O","U"]

if (char in arr):

print(char+" This is vowel")

else:

print(char+ " This is not a vawel")

21. **Swapping two number**

x = int(input("Enter the value of x:"))

y = int(input("Enter the value of y:"))

temp = x

x = y

y = temp

print('The value of x after swapping:',x)

print('The value of y after swapping:',y)

22. **Checking input number for odder even**

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

if number % 2 == 0:

    print(f"{number} is an even number.")

else:

    print(f"{number} is an odd number.")

23. **Print multiplication table of input number**

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

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

    result = number \* i

    print(f"{number} x {i} = {result}")

24. **Reverse an Array**

marks = [3,4,5,6,7,8,9]

marks.reverse()

print(marks)

25. **Add element array**

n = str(input("Enter the charecter :"))

arr = ["Bijoy","Shafin","Kabir"]

arr.append(n)

print(arr)

26. **Delete element in array**

arr = ["Bijoy","Shafin","Kabir","Bpi","Cst","MT","CT"]

print(arr)

n= str(input("Enter the charecter that you can remove:"))

arr.remove(n)

print(arr)

27. **Largest and Smallest element in array**

arra = [2,3,4,5,6,7,8,9]

largest\_element = max(arra)

smallest\_element = min(arra)

print("Largest Element:", largest\_element)

print("Smallest Element:", smallest\_element)

28. **Addition and subtraction of matrices**

29. **Factorial value of number using**

**recursive faction**

30 . **Fibonacci series using recursive**

**faction**

31. **Adding two Numbers using function**

def sum( num1,num2):

result = num1 + num2

return result

num1 = int(input("Enter the first number: "))

num2 = int(input("Enter the second number: "))

res = sum(num1,num2)

print(res)

32. **LGM of two number**

num1= int(input("Enter the first number:"))

num2 = int (input("Enter the Secend number:"))

for i in range ( max(num1,num2),1+ (num1\*num2)):

if i%num1 ==i % num2 ==0:

icm = i

break

print("LCM of ", num1 , "and", num2, "is ", icm)

33. **GCD of two numbers**

def gcd\_recursive(a,b):

if b==0:

return a

else:

return gcd\_recursive(a,a%b)

a = int (input("Enter the first Number:"))

b = int (input("Enter the Secend Number:"))

gcd = gcd\_recursive(a,b)

print("The GCD of", a, "and ", b, "is",gcd)

34. **Leap year**

year = int(input("Enter a year: "))

if (year % 4 == 0 and year % 100 != 0) or (year % 400 == 0):

print(f"{year} is a leap year.")

else:

print(f"{year} is not a leap year.")

35. **Celsius of Fahrenheit**

#(0°C × 9/5) + 32 = 32°F

celsius = int(input("Enter the celsius:"))

fahrenheit = (celsius \* (9/5)) +32

print(fahrenheit)

36. **Windows Shutdown**

import os

# Shut down the Windows system

shoutDown = os.system("shutdown /s /t 1")

print("Cleck on the text",shoutDown)

37. **Current Date and Time**

import datetime

current\_datetime = datetime.datetime.now()

# Print the result

print(f"Current Date and Time: {current\_datetime}")

38. **Display Calendar**

import calendar

yy = 2014

mm = 11

print(calendar.month(yy, mm))