Programm\_01

#Uncomment below to take inputs from the user

a = float(input('Enter first side: '))

b = float(input('Enter second side: '))

c = float(input('Enter third side: '))

# calculate the semi-perimeter

s = (a + b + c) / 2

# calculate the area

area = (s\*(s-a)\*(s-b)\*(s-c)) \*\* 0.5

print('The area of the triangle is %0.2f' %area)

programm\_02

def factorial(x):

    """This is a recursive function

    to find the factorial of an integer"""

    if x == 1:

        return 1

    else:

        # recursive call to the function

        return (x \* factorial(x-1))

if \_\_name\_\_ =='\_\_main\_\_':

    x = int(input("Enter your input...."))

    print(factorial(x))

programm\_03

lower = 1

upper = 100

print("Prime numbers between", lower, "and", upper, "are:")

for num in range(lower, upper + 1):

   # all prime numbers are greater than 1

   if num > 1:

       for i in range(2, num):

           if (num % i) == 0:

               break

       else:

           print(num)

programm\_04

lower = 1

upper = 100

for num in range(lower, upper + 1):

  if num % 7 ==0:

      print(num)

programm\_05

x = int(input("Enter your input..."))

if x>=80:

    print("You got A+")

elif x>=70:

    print("You got A")

elif x>=60:

    print("You got A-")

elif x>=50:

    print("You got B")

elif x>=40:

    print("You got C")

else:

    print("You not pass")

programm\_06

bangla = 86

math = 77

science = 80

if bangla > math and bangla > science:

    print("This is a large number in Bangla....",bangla)

elif math > bangla and math > science:

    print("This is a large number in Math....", math)

else:

    print("This is a large number in Science....", science)

programm\_07

a = int(input("Enter your first number...."))

b = int(input("Enter your second number...."))

c = int(input("Enter your third number...."))

print()

if a>b and a>c:

    print("This is the larger number..", a)

elif b>a and b>c:

    print("This is the larger number..", b)

else:

    print("This is the larger number..", c)

programm\_08

for i in range(10):

    x = int(input("Enter your input..."))

    if x>=80:

        print("You got A+")

    elif x>=70:

        print("You got A")

    elif x>=60:

        print("You got A-")

    elif x>=50:

        print("You got B")

    elif x>=40:

        print("You got C")

    else:

        print("You not pass")

programm\_09

num = int(input("Enter your input...."))

# If given number is greater than 1

if num > 1:

    # Iterate from 2 to n / 2

    for i in range(2,int(num/2)+1):

        # If num is divisible by any number between

        # 2 and n / 2, it is not prime

        if (num % i) == 0:

            print(num, "is not a prime number")

            break

    else:

        print(num, "is a prime number")

else:

    print(num, "is not a prime number")

programm\_10

# Solve the quadratic equation ax\*\*2 + bx + c = 0

# import complex math module

import cmath

a = int(input("Enter your value of a..."))

b = int(input("Enter your value of b..."))

c = int(input("Enter your value of c..."))

# calculate the discriminant

d = (b\*\*2) - (4\*a\*c)

# find two solutions

sol1 = (-b-cmath.sqrt(d))/(2\*a)

sol2 = (-b+cmath.sqrt(d))/(2\*a)

print('The solution are {0} and {1}'.format(sol1,sol2))

programm\_11

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

i = 1

while i <= x:

    if i % 2 == 0:

        print(i)

    i = i + 1

programm\_12

lower = int(input("Enter your first input...."))

upper = int(input("Enter your second input...."))

result = 0

for num in range(lower, upper + 1):

    if num % 7 ==0:

        result = result + num

print(result)