Prg 1:

# Program to check if a number is prime or not

num = 29

# To take input from the user

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

# define a flag variable

flag = False

# prime numbers are greater than 1

if num > 1:

# check for factors

for i in range(2, num):

if (num % i) == 0:

# if factor is found, set flag to True

flag = True

# break out of loop

break

# check if flag is True

if flag:

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

else:

print(num, "is a prime number")

prg 2:

# Python program to print Even Numbers in given range

start = int(input("Enter the start of range:"))

end = int(input("Enter the end of range:"))

# iterating each number in list

for num in range(start, end + 1):

# checking condition

if num % 2 != 0:

print(num)

prg 3:

# Python program to display all the prime numbers within an interval

lower = 900

upper = 1000

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)

prg 4:

# Program to display the Fibonacci sequence up to n-th term

nterms = int(input("How many terms? "))

# first two terms

n1, n2 = 0, 1

count = 0

# check if the number of terms is valid

if nterms <= 0:

print("Please enter a positive integer")

# if there is only one term, return n1

elif nterms == 1:

print("Fibonacci sequence upto",nterms,":")

print(n1)

# generate fibonacci sequence

else:

print("Fibonacci sequence:")

while count < nterms:

print(n1)

nth = n1 + n2

# update values

n1 = n2

n2 = nth

count += 1