1. Write a Python Program to Check if a Number is Positive, Negative or Zero?

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

if num > 0:

print("Positive number")

elif num == 0:

print("Zero")

else:

print("Negative number")

1. Write a Python Program to Check if a Number is Odd or Even?

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

if (num % 2) == 0:

print(num,"is Even")

else:

print(num,"is Odd")

1. Write a Python Program to Check Leap Year?

def CheckLeap(Year):

# Checking if the given year is leap year

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

print("Given Year is a leap Year");

# Else it is not a leap year

else:

print ("Given Year is not a leap Year")

# Taking an input year from user

Year = int(input("Enter the number: "))

# Printing result

CheckLeap(Year)

1. Write a Python Program to Check Prime Number?

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")

1. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

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

lower = 1

upper = 10000

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)