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

ANS:

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

if num > 0:

print("It is positive number")

elif num == 0:

print("It is Zero")

else:

print("It is a negative number")

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

ANS:

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

mod = num % 2

if mod > 0:

print("This is an odd number.")

else:

print("This is an even number.")

1. Write a Python Program to Check Leap Year?

ANS:

year = int(input('Enter year : '))

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

    print(year, "is a leap year.")

else :

    print(year, "is not a leap year.")

1. Write a Python Program to Check Prime Number?

ANS:

# taking input from user

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

# prime number is always greater than 1

if number > 1:

for i in range(2, number):

if (number % i) == 0:

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

break

else:

print(number, "is a prime number")

# if the entered number is less than or equal to 1

# then it is not prime number

else:

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

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

ANS:

def check\_prime\_no(num):

if num > 1:

for i in range(2, num):

if (num % i) == 0:

break

else:

print(num,end=" ")

lower = 1

upper = 10000

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

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

# all prime numbers are greater than 1

check\_prime\_no(i)