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

Ans:

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?

Ans:

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

if num%2==0:

print("Even number")

else:

print("Odd number")

1. Write a Python Program to Check Leap Year?

Ans:

year = int(input("Write any year to check if it is leap year:- "))

if year % 4 == 0:

if year % 100 == 0:

if year % 400 == 0:

print("Leap year.")

else:

print("Not leap year.")

else:

print("Leap year.")

else:

print("Not leap year.")

1. Write a Python Program to Check Prime Number?

Ans:

num = int(input("enter num"))

if num > 1:

# Iterate from 2 to num / 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")

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

Ans:

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)