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")

OUTPUT:

Enter a number: 5

Positive number

Enter a number: -10

Negative number

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

Ans.

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

if (num % 2) == 0:

print("{0} is Even".format(num))

else:

print("{0} is Odd".format(num))

OUTPUT:

Enter a number: 1

1 is Odd

Enter a number: 1

2 is Even

1. Write a Python Program to Check Leap Year?

Ans.

def checkYear(year):

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

print(f'{year} is a Leap year')

else:

print(f'{year} is not a Leap year')

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

checkYear(year)

OUTPUT:

Enter year: 2020

2020 is a Leap year

Enter year: 2021

2021 is not a Leap year

1. Write a Python Program to Check Prime Number?

Ans.

def isPrime(num):

flag = False

for i in range(2, num):

if num % i == 0:

flag = True

break

if (not flag):

print(f'{num} is a prime number')

else:

print(f'{num} is not a prime number')

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

isPrime(number)

OUTPUT:

Enter a number: 2

2 is a prime number

Enter a number: 4

4 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):

if num > 1:

for i in range(2, num):

if (num % i) == 0:

break

else:

print(num)