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

a = float(input('Enter number to be checked'))

if a > 0:

print('The number is positive')

elif a == 0:

print('The number is zero')

else:

print('The number is negative')

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

a = float(input('Enter number to be checked: '))

if a%2 == 0:

print('This is an even number')

else:

print('This is an odd number')

1. Write a Python Program to Check Leap Year?

a = int(input('Enter year to be checked: '))

if a%4 == 0:

if a%100 == 0:

if a%400 == 0:

print('This is a leap year')

else:

print("This is not a leap year")

else:

print('This is a leap year')

else:

print('This is not a leap year')

1. Write a Python Program to Check Prime Number?

a = 223

for i in range(2,a):

if a%i == 0:

print('This is not a prime number')

break

else:

print('This is a prime number')

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

l = []

for i in range(2,10001):

for j in range(2,i):

if i%j == 0:

break

else:

l.append(i)

print(l)