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

x = int(input('enter a number '))

if x<0:

print ('It is Negative')

elif x>0:

print ('It is Positive')

else:

print ('It is Zero')

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

x = int(input('enter a number '))

if x==0:

print ('Please enter non-zero value')

elif x%2 == 0:

print ('It is Even')

else:

print ('It is Odd')

1. Write a Python Program to Check Leap Year?

x = int(input('enter the year '))

if x%4==0:

print ('It is leap year')

else:

print ('Not a leap year')

1. Write a Python Program to Check Prime Number?

x = int(input('enter a number '))

if x>1:

for i in range(2,x):

if x%i==0:

print ('Not a prime number')

break

else:

print ('It is a prime number')

else:

print ('Not a prime number')

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

for i in range (1,10000):

for j in range(2,i): #check divisibility by every number which comes before, starting from 2

if i%j==0: #no need to continue loop if number is divisible

break

else:

if i>1: #because 1 is not prime number

print (i)