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

n = int(input('enter a number: '))

if n < 0:

print('The number is negative')

elif n > 0:

print('The number is positive')

else:

print('The number is zero')

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

n = int(input('Enter a number: '))

if n%2 == 0:

print('The number is even')

else:

print('The number is odd')

1. Write a Python Program to Check Leap Year?

import calendar

year = int(input('Enter a year to check if leap or not: '))

calendar.isleap(year)

1. Write a Python Program to Check Prime Number?

n = int(input('Enter a number: '))

l=[]

for i in range(n):

if n % (i+1) == 0:

l.append(i+1)

if len(l) > 2:

print('the number is not prime')

else:

print('the number is prime')

print('the factors of the number are: ', l)

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

p=[]

for j in range(10000):

l=[]

for i in range(j+1):

if (j+1) % (i+1) == 0:

l.append(i+1)

if len(l) == 2:

p.append(j+1)

print(p)