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

Ans: #user defined input

X=float(input("enter a number "))

#checking whether no is positive ,negative or 0

if(X>0):

print("entered number {} is positive".format(X))

elif(X<0):

print("entered number {} is negative".format(X))

else:

print("entered number is 0")

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

Ans: #user defined input

X=float(input("enter a odd or even"))

#checking whether no is odd or even

if(X%2==0):

print("entered number {} is even".format(X))

else:

print("entered number {} is odd".format(X))

1. Write a Python Program to Check Leap Year?

Ans: #user defined input

Y=int(input("enter a year"))

#checking whether no is leap or not

if(Y%4==0 and Y%100!=0):

print("entered year {} is a leap year".format(Y))

elif(Y%400==0):

print("entered year {} is a leap year".format(Y))

else:

print("entered year {} is not a leap year".format(Y))

1. Write a Python Program to Check Prime Number?

Ans: #user defined input

P=int(input("enter a number"))

#checking whether no is prime or not

if(P%2!=0 andP%3!=0):

if(P%5!=0 and P%7!=0):

print("entered number {} is a prime number".format(P))

else:

print("entered number {} is not a prime number".format(P))

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

Ans: P=[] #defining list to store prime nos

#checking and storing prime nos

for n in range(1,10000):

if(n%2!=0 and n%3!=0):

if(n%5!=0 and n%7!=0):

P.append(n)

print("the prime nos are ",P)