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

num = int(input("Take a number to check : "))

if num > 0:

print("The number entered is a postive no")

elif num == 0:

print("The number entered is zero")

else:

print("The number entered is a negative no")

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

check = int(input("Take a number to check : "))

if check % 2 == 0:

print("The entered no {} is an even one".format(check))

else:

print("The entered no {} is an odd one".format(check))

1. **Write a Python Program to Check Leap Year?**

year = int(input("Check whether this year is leap or not : "))

if (year % 4 == 0):

if (year % 100) == 0:

if (year % 400) == 0:

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

else:

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

else:

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

else:

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

1. **Write a Python Program to Check Prime Number?**

num = int(input("Take a input to check prime nos : "))

if num > 1:

for i in range(2,num):

if (num % i) == 0:

print(num, "its not a prime no")

break

else:

print(num, "its a prime no")

break

else:

print("The {} is less than or equal to 1, hecne not a prime no".format(num))

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

for num in range(1,100001):

if num > 1:

for i in range(2,num):

if (num% i) == 0:

break

else:

print(num,end =' ')

break