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

**Sol:**

a = int(input("enter value of a : "))

if a == 0:

    print(" a is zero")

elif a<0:

    print("a is negative number")

else:

    print("a is positive number")

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

**Sol:**

a = int(input("enter value of a : "))

if a%2==0:

    print("a is even number")

else:

    print("a is odd number")

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

**Sol:**

year = int(input("enter the year:"))

if year%4==0:

    print("its a laeap year")

else:

    print("its not leap year")

4. Write a Python Program to Check Prime Number?

**Sol:**

num = int(input("enter the number:"))

if num >1:

    for i in range(2,num):

        if (num%i)==0:

            print(num,"is not a prime number")

            break

    else:

        print(num,"is a prime number")

else:

    print("its not a prime number")

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

**Sol:**

a = 1

b = 1000

for num in range(a,b,1):

 if num >1:

    for i in range(2,num):

        if (num%i)==0:

            break

    else:

        print(num)