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

**num=int(input("Enter an integer: "))**

**if num<0:**

**print("The number {} is negative".format(num))**

**elif num==0:**

**print("The number {} is zero".format(num))**

**else:**

**print("The number {} is positive".format(num))**

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

**num=int(input("Enter an integer: "))**

**if num%2==0:**

**print("The number {} is even".format(num))**

**else:**

**print("The number {} is odd".format(num))**

1. Write a Python Program to Check Leap Year?

**num=int(input("Enter year: "))**

**if num%4==0:**

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

**else:**

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

1. Write a Python Program to Check Prime Number?

**# To check whether a number is a prime number or not**

**num=int(input("Enter a number greater than 1: "))**

**for i in range(2,int(num/2)+1):**

**if num%i==0:**

**print("The number {} is divisible by {}, thus is not a prime number".format(num,i))**

**break**

**else:**

**print("the number {} is a prime number".format(num))**

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

**# Prime numbers between 1 and 10000**

**l=[2,3]**

**for j in range(4,10000):**

**for i in range(2,int(j/2)+1):**

**if j%i==0:**

**#print("The number {} is divisible by {}, thus is not a prime number".format(num,i))**

**break**

**else:**

**l.append(j)**

**print(l)**