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

Ans. **num = float(input("Enter a number: "))**

**if num > 0:**

**print("Positive number")**

**elif num == 0:**

**print("Zero")**

**else:**

**print("Negative number")**

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

Ans. **num = int(input("Enter a number: "))**

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

**print("{0} is Even".format(num))**

**else:**

**print("{0} is Odd".format(num))**

1. Write a Python Program to Check Leap Year?

ANS. **year = int(input('Enter year : '))**

**if (year%4 == 0 and year%100 != 0) or (year%400 == 0) :**

**print(year, "is a leap year.")**

**else :**

**print(year, "is not a leap year.")**

1. Write a Python Program to Check Prime Number?

ANS. **num = int(input("Enter a number: "))**

**# If number is greater than 1**

**if num > 1:**

**# Check if factor exist**

**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 if the input number is less than or equal to 1**

**else:**

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

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

ANS. **# First, we will take the input:**

**lower\_value = int(input ("Please, Enter the Lowest Range Value: "))**

**upper\_value = int(input ("Please, Enter the Upper Range Value: "))**

**print ("The Prime Numbers in the range are: ")**

**for number in range (lower\_value, upper\_value + 1):**

**if number > 1:**

**for i in range (2, number):**

**if (number % i) == 0:**

**break**

**else:**

**print (number)**