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 number". format(num))**

**else:**

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

1. Write a Python Program to Check Leap Year?

**Ans: year = int(input("Enter a year: "))**

**if (year % 4) == 0:**

**if (year % 100) == 0:**

**if (year % 400) == 0:**

**print("{0} is a leap year".format(year))**

**else:**

**print("{0} is not a leap year".format(year))**

**else:**

**print("{0} is a leap year".format(year))**

**else:**

**print("{0} is not a leap year".format(year))**

1. Write a Python Program to Check Prime Number?

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

**flag = False**

**if num > 1:**

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

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

**flag = True**

**break**

**if flag:**

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

**else:**

**print(num, "is a prime number")**

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

**Ans: lower = 1**

**upper = 10000**

**print("Prime numbers between", lower, "and", upper, "are:")**

**for num in range(lower, upper + 1):**

**if num > 1:**

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

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

**break**

**else:**

**print(num)**