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

**x = float(input('Enter value:'))**

**if x>0:**

**print(' Value is positive')**

**elif x == 0:**

**print('Value is zero')**

**else:**

**print('value is negative')**

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

**x = int(input('Enter value:'))**

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

**print(' Value is Even')**

**else:**

**print('Value is ODD')**

1. Write a Python Program to Check Leap Year?

**year = int(input('Enter a year :'))**

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

**print('{0}This is a Leap year'.format (year))**

**elif (year % 4 == 0) and (year % 100 != 0):**

**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?

**n = int(input('Enter Your Number:'))**

**flag = False**

**if n>1:**

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

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

**flag = True**

**break**

**if flag:**

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

**else:**

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

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

lower = 1

upper = 1000

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

for n in range(lower, upper + 1):

if n > 1:

for i in range(2, n):

if (n % i) == 0:

break

else:

print(n)