1. Write a Python Program to Check if a Number is Positive, Negative or Zero?
2. Write a Python Program to Check if a Number is Odd or Even?
3. Write a Python Program to Check Leap Year?
4. Write a Python Program to Check Prime Number?
5. Write a Python Program to Print all Prime Numbers in an Interval of 1-10000?

Ans: Sure! Here are the Python programs for the tasks you mentioned:

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

```python

number = float(input("Enter a number: "))

if number > 0:

print("Positive")

elif number < 0:

print("Negative")

else:

print("Zero")

```

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

```python

number = int(input("Enter a number: "))

if number % 2 == 0:

print("Even")

else:

print("Odd")

```

3. Python Program to Check Leap Year:

```python

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

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

print("Leap year")

else:

print("Not a leap year")

```

4. Python Program to Check Prime Number:

```python

number = int(input("Enter a number: "))

is\_prime = True

if number <= 1:

is\_prime = False

else:

for i in range(2, int(number \*\* 0.5) + 1):

if number % i == 0:

is\_prime = False

break

if is\_prime:

print("Prime number")

else:

print("Not a prime number")

```

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

```python

lower = 1

upper = 10000

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

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

if num > 1:

is\_prime = True

for i in range(2, int(num \*\* 0.5) + 1):

if num % i == 0:

is\_prime = False

break

if is\_prime:

print(num, end=" ")

```

These programs should work as expected and provide the desired outputs.