

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?

1. Python program to check if a number is positive, negative or zero:

```
python
num = float(input("Enter a number: "))

if num > 0:
    print("Positive number")
elif num == 0:
    print("Zero")
else:
    print("Negative number")
```

2. Python program to check if a number is odd or even:

```
python
num = int(input("Enter a number: "))

if num % 2 == 0:
    print("Even number")
else:
    print("Odd number")
```

3. Python program to check leap year:

```
sql
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
num = int(input("Enter a number: "))
```

```
if num > 1:
    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:
    print(num,"is not a prime number")
```

5. Python program to print all prime numbers in an interval of 1-10000:

```
go
for num in range(1, 10001):
    if num > 1:
        for i in range(2, num):
            if (num % i) == 0:
                break
        else:
            print(num)
```

Note: There are more optimized ways to find prime numbers, but this is a simple approach.