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

```python
In [1]: a = int(input())
        if a > 0:
            print("positive")
        elif a < 0:
            print("negative")
        else:
            print("zero")
```

```
-10
negative
```

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

```python
In [2]: x = int(input("Enter a num: "))
        if x%2 == 0:
            print("This is a even number")
        else:
            print("This is an odd number")
```

```
Enter a num: 5
This is an odd number
```

3. Write a Python Program to Check Leap Year?

```python
In [3]: y = int(input("Enter the year : "))
        if y%4 == 0:
            print("This is a leap year")
        else:
            print("This is not a leap year")
```

```
Enter the year : 1997
This is not a leap year
```

4. Write a Python Program to Check Prime Number?

```python
In [21]: z = int(input("Enter a number: "))
         for i in range (2, z):
             if z%i == 0:
                 print("No, this is not a prime number")
                 break
         else:
             print("Yes, It is a prime number")
```

```
Enter a number: 3
Yes, It is a prime number
```

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

```python
In [ ]: m = int(input())
        for i in range(1, m+1):
            for j in range(2,i):
                if(i % j==0):
                    break
```

```
        else:
            print(i)
```

In [ ]:

```
        else:
            print(i)
```