

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

Ans:

```
a = int(input("Enter a number"))
if a > 0:
    print(f'{a} is a positive number')
elif a < 0:
    print(f'{a} is a negative number')
else:
    print('The number is zero')
```

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

Ans:

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

if a%2 == 0:
    print(f'{a} is an even number')
else:
    print(f'{a} is an odd number')
```

3. Write a Python Program to Check Leap Year?

Ans:

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

if a%4 == 0:
    print(f'{a} is a leap year')
else:
    print(f'{a} is not a leap year')
```

4. Write a Python Program to Check Prime Number?

Ans:

```
a = int(input('Enter a number'))
for i in range(2, a):
    if a%i == 0:
        print(f'{a} is not a prime number')
        break
else:
    print(f'{a} is a prime number')
```

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

Ans:

```
for i in range(1, 10000):
    if i<=2:
```

```
    print(i)
else:
    for j in range(2, i):
        if i%j == 0:
            break
    else:
        print(i)
```