

1. Positive or Negative Write a program to check whether a given number is positive, negative, or zero. (2)

```
In [1]: num = int(input("Enter a number: "))

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

The number is Positive

2. Even or Odd Write a program to check whether a given integer is even or odd. (2)

```
In [2]: num = int(input("Enter num: "))

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

The number is Even

3. Largest of Two Numbers Write a program to input two numbers and print which one is larger. (2)

```
In [5]: a = int(input("Enter num1: "))
b = int(input("Enter num2: "))

if a > b:
    print("Num1 is larger")
elif b > a:
    print("Num2 is larger")
else:
    print("Both are equal")
```

Num1 is larger

4. Absolute Value Write a program to find the absolute value of a given number without using the abs() function.

```
In [6]: num = int(input("Enter num: "))

if num < 0:
    print("Absolute value is:", -num)
else:
    print("Absolute value is:", num)
```

Absolute value is: 312

5. Eligibility for Voting Write a program to check whether a person is eligible to vote or not. (A person is eligible if their age is 18 or above).

```
In [7]: age = int(input("Enter age: "))

if age >= 18:
    print("Eligible")
else:
    print("Not Eligible")
```

Not Eligible

6. Leap Year Check Write a program to check whether a given year is a leap year or not. (Hint: A leap year is divisible by 4, but not by 100 unless also divisible by 400).

```
In [10]: year = int(input("\nEnter a year: "))

if (year % 400 == 0):
    print("Leap Year")
elif (year % 100 == 0):
    print("Not a Leap Year")
elif (year % 4 == 0):
    print("Leap Year")
else:
    print("Not a Leap Year")
```

Leap Year

7. Grade Calculation Write a program that takes marks as input and prints:

- 'Pass' if marks are 40 or above
- 'Fail' if marks are less than 40

```
In [11]: marks = int(input("Enter marks: "))

if marks >= 40:
    print("Pass")
else:
    print("Fail")
```

Pass

8. Multiple of 5 Write a program to check whether a given number is a multiple of 5.

```
In [12]: num = int(input("Enter a number: "))

if num % 5 == 0:
    print("The number is a Multiple of 5")
else:
    print("The number is NOT a Multiple of 5")
```

The number is a Multiple of 5

9. Character Case Check Write a program to input a character and check whether it is an uppercase letter, lowercase letter, or not a letter.

```
In [13]: ch = input("Enter a character: ")

if ch >= 'A' and ch <= 'Z':
    print("Uppercase Letter")

elif ch >= 'a' and ch <= 'z':
    print("Lowercase Letter")

else:
    print("Not a Letter")
```

Lowercase Letter

10. Discount Calculator Write a program that calculates the discount:

```
In [15]: amount = float(input("Enter purchase amount: "))

if amount >= 1000:
    print("Final Bill:", amount * 0.9)
else:
    print("Final Bill:", amount)
```

Final Bill: 1799.1000000000001

In [ ]: