

## **1. Even or Odd Checker**

Check whether a number is even or odd.

**Input:**

num = 7

**Output:**

Odd

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## **2. Simple Interest Calculator**

Calculate simple interest using

$$SI = (P \times R \times T) / 100$$

**Input:**

P = 10000, R = 5.5, T = 2

**Output:**

Simple Interest = 1100.0

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## **3. Vowel or Consonant**

Check whether a given character is a vowel.

**Input:**

ch = 'a'

**Output:**

Vowel

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## **4. Largest of Two Numbers**

Compare two integers and print the larger one.

**Input:**

a = 15, b = 20

**Output:**

20 is larger

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## **5. Positive, Negative or Zero**

Check whether a number is positive, negative, or zero.

**Input:**

num = -4

**Output:**

Negative

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## **6. Sum of First N Numbers**

Calculate sum from 1 to N using a loop.

**Input:**

N = 5

**Output:**

Sum = 15

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## **7. Multiplication Table**

Print multiplication table of a number up to 10.

**Input:**

num = 3

**Output:**

3 6 9 12 15 18 21 24 27 30

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## **8. Count Digits in a Number**

Count number of digits using while loop.

**Input:**

num = 4567

**Output:**

Digits = 4

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**9. Reverse a Number**

Reverse a given integer.

**Input:**

num = 123

**Output:**

321

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**10. List Sum**

Find the sum of elements in a list.

**Input:**

arr = [2, 4, 6, 8]

**Output:**

Sum = 20

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**11. Search Element in List**

Check whether an element exists in a list.

**Input:**

arr = [10, 20, 30], key = 20

**Output:**

Element Found

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**12. Break Statement**

Stop printing numbers when value reaches 5.

**Input:**

N = 10

**Output:**

1 2 3 4

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**13. Continue Statement**

Skip printing number 5.

**Input:**

N = 7

**Output:**

1 2 3 4 6 7

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**14. Function to Add Two Numbers**

Write a function that returns sum of two numbers.

**Input:**

a = 4, b = 6

**Output:**

Sum = 10

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**15. Function with Parameters**

Create a function to calculate square of a number.

**Input:**

num = 5

**Output:**

Square = 25

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**16. Return Value Example**

Function returns maximum of two numbers.

**Input:**

a = 9, b = 3

**Output:**

Maximum = 9

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**17. Local Variable Example**

Demonstrate a local variable inside a function.

**Input:**

function call

**Output:**

Local variable accessed

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**18. Global Variable Example**

Modify a global variable inside a function.

**Input:**

count = 5

**Output:**

Updated count = 6

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**19. Recursive Factorial**

Calculate factorial using recursion.

**Input:**

num = 5

**Output:**

Factorial = 120

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**20. Palindrome Check**

Check whether a string is palindrome.

**Input:**

text = "madam"

**Output:**

Palindrome

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**21. Count Vowels in String**

Count number of vowels.

**Input:**

text = "hello"

**Output:**

Vowels = 2

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**22. Average of Numbers**

Calculate average using function.

**Input:**

numbers = [10, 20, 30]

**Output:**

Average = 20.0

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### **23. Boolean Operator Check**

Print "Eligible" if age  $\geq 18$  AND citizen is True.

**Input:**

age = 19, citizen = True

**Output:**

Eligible

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### **24. Password Strength Check**

Password is strong if length  $\geq 8$ .

**Input:**

password = "abc12345"

**Output:**

Strong Password

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### **25. Loop Execution Counter**

Count how many times a loop executes.

**Input:**

N = 4

**Output:**

Loop executed 4 times