

### Simple Programs.

1. Write a Program to Display Addition of 2 Numbers.
2. Write a program to Display Subtraction of 2 Numbers.
3. Write a program to Display Multiplication of 3 Numbers.
4. Write a program to Display Division of 2 Numbers.
5. Write a program to Display Power and Number, Number and its Power enter by user e.g

Output:-

Enter Number :- 3

Enter Number :- 4

3 raised to the 3 power is 81.

6. Write a program to Display Simple Interest.
7. Write a program to Accept marks Of 5 subject each subject out 100 and Display Each subject marks, Total Marks and Percentage.

### Conditional Statement Program.

8. Write a program to accept the age of Candidate and Display weather He/She is Major Minor.
9. Write a program to Display Number is Even or Odd Enter by User.
10. Write a Program to accept 2 numbers from the user and Display highest number, if both are equal display 1st number is highest.
11. Write a Program to accept 2 numbers from the user and Display Lowest number, if both are equal display 2nd number is lowest.
12. Write a program to accept the age of User and Display weather He/She is Major, Minor or senior citizen.
13. Write a program to Display Highest of 3 numbers or equal enter by the user using **logical operators**.
14. Write a program to accept a character from user and Check and display the it is Vowel or Consonants
15. Write a program to accept a character from a user and check and display it is Capital Alphabet ,Small Alphabet ,Digit or Special Character using or with using **membership Operator**.
16. Write a program to make a **menu-driven program** in python using **simple if-else** statements for the following operations:
  1. Area of Circle
  2. Area of Rectangle
  3. Area of square
  4. Exit
17. Write a program to make a **menu-driven program** in python using **simple if-else** statements for the following operations:
  1. Square of Number
  2. Cube of Number
  3. Nth Power of number
  4. Exit

18. Write a program to Accept marks Of 5 subject each subject out 100 and Display Each subject marks, Total Marks, Percentage and He/She Grade as per following criteria

Percentage range	Grade
100 to 80	A+
79 to 70	A
69 to 60	B
59 to 50	C
49 to 40	D
below 40	Fail

19. Write a Program to Calculate the Simple Interest for Bank Customer for Fixed Deposit

- If customer is Female and Senior Citizen 8% rate
- If customer is Female and Non-Senior Citizen 6% rate
- If customer is Male and Senior Citizen 7% rate
- If customer is Male and Non-Senior Citizen 5% rate

**Note:- Accept customer name and his/her age.**

### Looping Statement.(While loop)

20. Write a Program to accept a number and counts its digits
21. Write a Program to reverse the number entered by the user.
22. Write a program to Display Sum of digits of Given number entered by user.
23. Write a program to factorial of number
24. Write a program to Check and Display the number is Prime or not.
25. Write a program to Check and Display the number is Perfect or not.
- A **Perfect number** is a positive integer that is equal to the **sum of its positive divisors, excluding the number itself**.  
For instance, **6** has divisors 1, 2 and 3, and **1 + 2 + 3 = 6**, so 6 is a perfect number.
26. Write a program to Check and Display the number is Palindrome or not.  
Entered Number and Its Reverse Number is Same is known as **Palindrome Number**.  
E.g.

Entered Number is **121** and its Reverse is **121**

27. Write a program to Check and Display if the number is Armstrong or not
- An n-digit number that is the sum of the nth powers of its digits is called an Armstrong number  
E.g.

$$\begin{aligned} 1. \quad 153 &= 1^3 + 5^3 + 3^3 \\ &= 1 + 125 + 27 \\ &= 153 \end{aligned}$$

$$\begin{aligned} 2. \quad 8208 &= 8^4 + 2^4 + 0^4 + 8^4 \\ &= 4096 + 16 + 0 + 4096 \\ &= 8208 \end{aligned}$$

$$\begin{aligned} 3. \quad 54748 &= 5^5 + 4^5 + 7^5 + 4^5 + 8^5 \\ &= 3125 + 1024 + 16807 + 1024 + 32768 \\ &= 54748 \end{aligned}$$

28. Write a Program to accept a number count it's even and odd number of digits  
 29. Write a Program to accept a number count it's Number of Zero digits.  
 30. Write a program to Check and Display if the number is Strong or not.

a. Sum of factorial of it Digits equal to that number is known

As a **Strong Number**.

e.g.

$$\begin{aligned} 145 &= 1! + 4! + 5! \\ &= 1 + 24 + 125 \\ &= 145 \end{aligned}$$

31. Write a program to check whether a given number is Neon Number or not.

A **Neon number** is a number where the **sum of digits of the square of the number** is equal to the number.

a. If entered number is between 1 to 32

E.g

1. The number is 9.  
 Its square is 81  
 Sum of digits of the square is  $8 + 1 = 9$

2. The Number is 12 (**Not Neon Number**)  
 Its square is 144  
 Sum of digits of the square is  $1 + 4 + 4 = 9$

32. Write a program to Display Number which satisfied following Conditions (**Note entered number must be between 33 to 99**).

E.g

The number is 45  
 Its Square is 2025  
 Sum of 1<sup>st</sup> 2 digit and last 2 digit is  $20 + 25 =$

33. Write a program to make a **menu-driven program** in python using **While loop** and **simple if-else** statements for the following operations: (**to ask options repeatedly**)

1. Area of Circle
2. Area of Rectangle
3. Area of square
4. Exit

34. Write a program to make a **menu-driven program** in python using **While loop** and **simple if-else** statements for the following operations: (**to ask option repeatedly**)

1. Square of Number
2. Cube of Number
3. Nth Power of number
4. Exit

#### Using For loop:

35. write a program to Display numbers between 1 to n numbers.
36. Write a program to Display factorial of the number entered by the user.
37. write a program to Display even numbers between 1 to n numbers.
38. write a program to Display odd numbers between 1 to n numbers.
39. write a program to Display numbers between 1 to n numbers.

40. write a program to Display numbers between 1 to n numbers those are divisible by 3.
41. write a program to Display numbers between 1 to n numbers those are divisible by 2 ,3 and 6 only.
42. write a program to Display numbers between 1 to n numbers those are divisible by 3 or 5 or 7
43. write a program to Display all Prime Numbers between numbers between 1 to n numbers.
44. write a program to Display Perfect numbers between 1 to n numbers.
45. write a program to Display numbers between 1 to n numbers those are divisible by m (**note value of m is entered by user**).