

LIST OF EXPERIMENT

Date of experiment: 17 July 2023

1. Write a program to swap two values:
 - a. Using third variable
 - b. Without third variable
2. Write a program to find the area of a rectangle and circle
3. Write a program to find the simple interest on a sum of principle
4. Write a program to convert Centigrade to Fahrenheit

Date of experiment: 21 July 2023

5. Write a program to print the area of a rectangle, if the length is greater than breath else print the perimeter
6. Write a program to check a three digits number whether it is a palindrome or not

Date of experiment: 24 July 2023

7. Write a program to check whether a number is divisible by
 - a. 5 or 7
 - b. 5 and 7
8. Write a program to find the largest among three integers
9. Write a program to check whether a digit at one's place is divisible by 7 or not
10. Write a program to print the sum of digits if the one's place is greater than the ten's place digit else print their product

Date of experiment: 28 July 2023

11. In an election, there are candidates X&Y. On the election day, 80% of the voters go for polling, out of which 60% vote for X. Write a program to take the number of votes as input and calculate number of votes X gets and number of votes Y gets
12. A man spends $\frac{1}{2}$ of his salary on food, $\frac{1}{15}$ on rent, $\frac{1}{10}$ on miscellaneous. Rest of the salary is his salary. Write a program to calculate and display the following:

- a. money spent on food
- b. money spent on rent
- c. money spent on miscellaneous
- d. money saved

13. Write a program to input time in seconds. Display the time after converting them into hours, minute's, seconds.

Simple input= 5420

Simple output= 1 hours 30 min 20 sec

14. The co-ordinate of two points A&B on a straight line are given as (x1, y1) & (x2, y2). Write a program to calculate the slope (m) of the line by using formula, $\text{slope} = \frac{y_2 - y_1}{x_2 - x_1}$

Take the co-ordinate as input

Date of experiment: 31 July 2023

15. Write a program to input a number. Check & display whether it is a Niven number or not (A number is said to be a Niven if it is divisible by the sum of digits)

Simple input= 126

Sum of digit (1+2+6) =9 and 126 is divisible by 9

16. Write a program to input a number. Check & display whether it is a perfect or not. A number is said to be perfect if the sum of the factor (including 1 & excluding the number itself) is the same as the original number

17. Write a program to input a number. Check & display whether the number is an Armstrong number or not (A number is said to be Armstrong if the sum of the cubes of its digits is equal to the original number). Input: 153

18. An automorphic number is the number which is contained in the last digits of its square. Write a program to input a number & check whether the number is automorphic or not.

Sample input: 125

Square of 25= 625, & 25 is present as the last two digit.

Date of experiment: 04 August 2023

19. Write a program which accepts a number from the keyboard & find
 - a. sum of digits
 - b. average of digits
20. Write a program which accepts a number then find the square root of each digits & sum up the digits after square root.
21. Write a program which finds the sum of even digits & odd digits in two different variables.
22. Write a program which accepts a number from keyboard & counts the frequency of each digit in that numbers.

Date of experiment: 11 August 2023

23. Write a program to accept a set of any 10 characters.
Calculate & print the sum of ASCII codes of the character.
24. Write a program to generate 10 characters between 'A' and 'J' randomly.
25. Write a program to input two integer numbers. Join them together to form a single number.
[use to String(n) function]

Date of experiment: 14 August 2023

26. A triangle is said to be an "Equable triangle", if the area of the triangle is equal to its perimeter. Write a program to enter three sides of a triangle. Check & print whether the triangle is equable or not
27. A special two-digit number is such that when the sum of its digit is added to the product of its digit, the result is equal to the original two-digit number

28. Write a program to enter a number containing three digit or more. Arrange the digits in ascending order & display the result
Input: 4927
Output: 2, 4, 7, 9
29. Write a program to display all the numbers between 100 & 200 which does not contain zero at one's position.
30. Write a program to display all prime palindrome numbers between 10 & 1000.
31. Find the sum of the following series: -
a. $1 + \frac{3}{2!} + \frac{5}{3!} + \frac{7}{4!} + \dots n$ terms
b. $S = 1 + \frac{1}{2!} - \frac{1}{3!} + \frac{1}{4!} - \frac{1}{5!} + \dots \frac{1}{n!}$ terms
- 32.