

1. Evaluate the expression: $Z = ax + (b-c)(c-d)/y$

Output Format:

“ $Z = ax + (b-c)(c-d)/y$ “

Enter a value :

Enter b value :

Enter c value :

Enter d value :

Enter x value :

Enter y value :

$Z = 75888$

2. Write a program to find smallest of three numbers.

Output Format:

Enter A value : 4

Enter B value : 14

Enter C value : 34

“A is smallest “

3. Write a program to find a given number is prime or not. Read a number from user and display as per the output format.

Output Format:

Prime Check

Enter a number: 56

“56 is not a prime number”

Enter a number: 17

“17 is a prime number”

4. Write a program to generate even numbers between two different values. Proceed to verify the given inputs are not null.

Output Format:

Even Number Generation

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Enter starting number: 23

Enter final number : 30

Even list between 23 and 40: 24, 26, 28, 30

### Even Number Generation

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Enter starting number: 0

Enter final number : 0

“Please provide not null values “

Even Number Generation

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Enter starting number: 23

Enter final number : 12

Even list between 23 and 12: 22, 20, 18, 16,14,12

5. Write a program to generate an odd list between 20 to 47 and count number of odds in the list. Display your result as per the output format.

**Output Format:**

Odd list between 20 to 47: 21, 23, ..... 47

Number of Odds between 20 to 47: 14

6. Write a program to generate Fibonacci series as per the user input.

**Output Format:**

1,1,2,3, 5,.....n

7. Write a program to read a number from user, find factorial for the given number and display as like,

**Output Format:**

Enter a value: 5

Factorial of 5 is 120.

8. Write a program to display the pattern below as per the user input.

**Output Format:**

Enter a value: 5

$$1 - 1/2 + 2/4 - 4/8 + 8/16$$

9. Write a program to read a value from user and display the place value.

**Output Format:**

Enter a value: 3842

“3 Thousand, 8 Hundred, 4 Ten ,2 One”

10. Write a program to generate the following pattern

**Output Format:**

$$1 + 3 + 6 + 9 + \dots N$$

$$1 + 1/2 + 2/3 + 3/4 \dots N/N+1$$

$$1 + 1/2 - 1/3 + 1/4 - 1/5 \dots N$$

11. Write a program to read the first name and last name. Validate the user inputs as follows

- Verify first name and last name are different
- Verify the name contains only alphabets

**Output Format:**

First name : manju

Last name : manju

“ Please provide different surname “

First name : manju

Last name : \$parthi

“Please provide only letters “

First name : manju

Last name : Parthi

“ Hi Manju Parthi “

12. Write a program to read a sentence and display. Count number of words, special characters and vowels in the sentence and display as follows,

**Output Format:**

Enter your sentence here: Hi, how are you?

Given sentence: "Hi, how are you? "

Special characters: 2

Words: 4

Vowels: 6

**13. write a program to generate 10 random numbers as per the user input range. Count number of repeated numbers in the list and display.**

**Output Format:**

Enter a number: 34

List: 12,34,34,10,11,22,34,17,14,9

Repeat: 34 repeats 3 times

**14. write a program to create an integer array of size 10 and display. Count number of even numbers and number of odds in the list and display as follows**

**Output Format:**

Enter 10 values: 12,34,12,43,54,67,3,78,23,67.

Even List: 12,34,12,54,78

Odd List: 43,67,3,23,67

No. of Evens: 5

No. of Odds: 5

**15. write a program to read 5 different double values and store in an array called double list. Sort the array elements and display the sorted list.**

**Output Format:**

Given list: 2.3, 1.2, 4.5, 6.2, 1.1

Sorted list: 1.1, 1.2, 2.3, 4.5, 6.2

