



Loop Questions level - 3

1. Write a program to find the sum of 1st 10 odd natural numbers.
2. Write a program to find the sum of 1st 10 even natural numbers.
3. Write a program to find the sum of all 3-digit even natural numbers.
4. Write a program to find the sum of all 3-digit odd natural numbers, which are multiples of 5.
5. Write a program to input an integer and find its factorial. Factorial of a number is the product of all natural numbers till that number. For example factorial of 5 is 120 since $1 \times 2 \times 3 \times 4 \times 5 = 120$.
6. Write a program to input an integer and print its factors.
For Example,
INPUT: Enter an integer:12
OUTPUT: Factors: 1 2 3 4 6 12
7. Write a program to input an integer and count the number of factors.
8. Write a program to input an integer and check whether it is a prime number or not.
9. Write a program to input 10 integers and find their sum.
10. Write a program to input 10 integers and find the sum of even numbers only.
11. Write a program to input 10 integers and find the sum of two digit as well as three digit numbers separately.
12. Write a program to input 10 integers and display the largest integer.
13. Write a program to input 10 integers and display the largest as well as the smallest integer.
14. Write a program to input 10 integers and display the largest even integer. In case there is no even integer, it should print "No even integer found".
15. Write a program to input 10 integers and check whether all the entered numbers are even numbers or not.
16. Write a program to input 10 integers and check whether all the entered numbers are same or not.
For Example,
INPUT: Enter 10 numbers: 10 12 13 234 45 34 67 78 76 12
OUTPUT: All numbers are not same.
INPUT: Enter 10 numbers: 12 12 12 12 12 12 12 12 12 12
OUTPUT: All numbers are same.



17. Write a program to calculate and print the sum of odd numbers and the sum of even numbers for the first n natural numbers. The integer n is to be entered by the user.
18. Write a program to find the sum of 1st 10 numbers of Fibonacci series i.e. 1, 1, 2, 3, 5, 8, 13.... Fibonacci series is such a series which starting from 1 and 1, and subsequent numbers are the sum of the previous two numbers.
19. Write a program to input an integer and check whether it is perfect, abundant or deficient number. If the sum of the factors excluding itself is equal to that number it is perfect, if greater than that number it is abundant and if less than that number it is deficient number.
20. Write a program to input two integers and find their Least Common Multiple (L.C.M.).

For Example,

INPUT: Enter 2 integers:

12

8

OUTPUT: L.C.M. = 24

21. Write a program to input two integers and find their Highest Common Factor (H.C.F.).

For Example:

INPUT: Enter 2 integers:

12

8

OUTPUT: H.C.F. = 4

22. Write a menu driven class to accept a number from the user and check whether it is a Palindrome or a Perfect number.

a.) Palindrome number- (a number is a Palindrome which when read in reverse order is same

as read in the right order) Example: 11, 101, 151, etc.

b.) Perfect number- (a number is called Perfect if it is equal to the sum of its factors other than

the number itself.) Example: $6 = 1 + 2 + 3$

23. Write a program to print the sum of negative numbers, sum of positive even numbers and sum of positive odd numbers from a list of numbers (N) entered by the user. The list terminates when the user enters a zero.