Lab Assignment - 2

1. WAP to check whether a number is palindrome or not
2. WAP to find out the sum of digits of a number n.
3. You are given an array of 0s and 1s in random order. WAP to segregate 0s on left side and 1s on right side of the array.

   If input = [0, 1, 0, 1, 0, 0, 1, 1, 1, 0] then output = [0, 0, 0, 0, 0, 1, 1, 1, 1, 1]
4. WAP to compute the sine series using function $\sin(x)=x-x^3/3!+x^5/5!-x^7/7!+$ .....
5. WAP to design a user defined function (say array_sum) to calculate the sum of all the integers stored in the 2-D array.
6. WAP to sort the elements of an array in ascending order by using a suitable function for sort operation.
7. WAP to check whether a number can be expressed as a sum of two prime numbers. E.g. 32 can be expressed as sum of two prime numbers i.e. 1 and 31
8. WAP to calculate GCD/HCF of two numbers by using recursive function
9. WAP with the a function rotate(ar[], d, n) that rotates arr of size n by d elements. If the array elements are 1, 2, 3, 4, 5 and rotating by 1 position would make the array as 2, 3, 4, 5, 1

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10. WAP to find the LCM of two numbers a and b by using a suitable function (say LCM) for this.
11. WAP to find out the sum of n elements of an integer 1-D array by using recursion.
12. WAP by designing a recursive function to calculate the sum of all even digits of any given integer.
13. WAP to find out ${}^nc_r$ factor by using a user defined function (say fact).
14. WAP to calculate x^y by writing a function (say power).
15. Given an array, WAP that segregates even and odd numbers. The functions should put all even numbers first, and then odd numbers.
16. WAP to display prime numbers between two intervals. E.g. Prime numbers between 20 and 50 are: 23 29 31 37 41 43 47
17. WAP that receives a floating point value x and returns it as a value rounded to two nearest decimal places. E.g. the value 123.4567 will be rounded to 123.46
18. WAP to split the array at the given position and move the first part of the array to the end.