PLT Labs

1.Write a program to find the sum of all the prime numbers in the range n to m. Display each prime number and the final sum.

2. Write a program to find the factorial of a given number. 0! is always 1. Factorial of a negative number is not possible.

3. Write a program to find whether a given number is a Fibonacci number or not.

4. Write a program to accept a decimal number. Display it in the binary form.

5. Write a program to accept a binary number and display it in the decimal form.

6. Write a program to do the following:

a. Input: 270176

b. Output: Two Seven Zero One Seven Six

7. Write a program that takes amount and displays them in words

a. Input: 1234

b. Output: One thousand two hundred and thirty-four only

8. Accept the item code, description, qty and price of an item. Compute the total for the item.

a. Accept the user's choice. If the choice is 'y' then accept the next set of inputs for a new item and compute the total. In this manner, compute the grand total for all the items purchased by the customer.

b. If the grand total is more than Rs. 10,000/- then, the customer is allowed a discount of 10%.

c. If the grand total is less than Rs. 1,000/- and the customer chooses to pay by card, then a surcharge of 2.5% is levied on the grand total.

d. Display the grand total for the customer in number form and in words.

9. Write the pseudo codes to generate the following series. In all the following cases, accept N:

b. 1, 1, 2, 3, 5, 8, 13, … N

c. 1, 2, 4, 6, 7,10, 10,14… N

d. 1, 5, 8, 14, 27, 49, … N

10. Write a program to find X ^ N (x to the power of n) without using in-built functions. Accept X and binary n. Display the result.

11. Write a program to check if the string is a palindrome

12. Write a program to store N elements in an array of integer. Display the elements. Accept a number to be searched. Display whether the number is found or not in the array (LINEAR SEARCH).

13.Write a program to store N elements in an array of integer. Display the elements. Sort the elements. Accept a number to be searched. Display whether the number is found or not in the array using BINARY SEARCH.

14. Write a program to store elements into a M * N matrix of integer. Display the matrix and its transpose.

15. Write a program to store elements into a N * N matrix of integer. Display whether it is an identity matrix or not.

16. Write a program to store elements into a N * N matrix of integer. Display whether it is a symmetric matrix or not.

17. Write a program to add, subtract and multiply two matrices

18. Write the programs to generate the following outputs. In all the following cases, accept N:

*****

*****

*****

*****

: N rows

11111

22222

33333

44444

: N rows

12345

12345

12345

12345

: N rows

*

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***

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: N rows

19.Write the programs to generate the following outputs. In all the following cases, accept N:

1

12

123

1234

: N rows

1

22

333

4444

: N rows

1

23

456

7 8 9 10

: N rows

1

12

358

:

: N rows

20. Write the programs to generate the following outputs. In all the following cases, accept N:

1

-4 9

-16 25 -36

:

: N rows

1

12

6 24 120

:

: N rows

  *

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****

:

N rows

*

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*****

****

: N rows

21. Write a program to calculate the LCM of any no. of numbers
22. Write a program to calculate the LCM of an array.