FLOWGORITHM ASSIGNMENT-2

Draw Flowchart of These Questions and Come Individually For Submission

1. Produce the following sequence and print the sum of the sequence $1+x+x^2+x^3+\ldots+x^n$.

2. Produce the following sequence and print the sum of the sequence $x^2+x^4+\ldots+x^n$, where the exponents need to be even number. If the n is odd read again a new value for n.

3. Produce FIBONACCI series 0,1,1,2,3,5,8,… Read a limit from the user.

4. Generate flow chart to generate the solution for quadratic equation $ax^2+bx+c=0$

5. Read a value n and print the n^{th} harmonic number.
   [HINT:$H_n=1/1+1/2+1/3+\ldots+1/n$]

6. Input a number check if it is a Armstrong number. [HINT: $371=3^3+7^3+1^3$]

7. Input marks of 5 subjects and calculate the average mark and calculate the grade with the following criteria:-
   a. If average mark greater than 80, then grade ='A'
   b. If average mark between 60 and 80, then grade ='B'
   c. If average mark between 40 and 60, then grade ='C'
   d. All other cases grade ='F'

8. Input a number more than 2 digits and do the following using the given criteria's
   a. If number is odd then print the sum of the odd digits of the number
   b. If number is even then print the product of the even digits of the number
9. Input a number and print the sum of digits and product of digits by reading a choice from the user.

10. Input a number and check if the number is palindrome. (number=reverse of number)

11. Input a number and Check if a number is prime or not.

12. Input a number and print the factorial of the number.