Homework Questions Part 2

1. Write an algorithm and draw a flowchart that will read the two sides of a rectangle and calculate its area and perimeter.
2. Draw a flowchart to find all the roots of a quadratic equation \( ax^2 + bx + c = 0 \).
3. Print Hello World 10 times.
4. Draw a flowchart to find the sum of the first 50 natural numbers.
5. Write an algorithm and draw a flowchart to calculate \( 2^4 \).
6. Draw a flowchart to find LCM of two numbers.
7. Draw a flowchart to print all Prime numbers between 1 to \( n \).
8. Draw a flowchart to find sum of all prime numbers between 1 to \( n \).
9. Draw a flowchart to check whether a number is Armstrong number or not.
10. Draw a flowchart to print all Armstrong numbers between 1 to \( n \).
11. Draw a flowchart to check whether a number is Perfect number or not.
12. Draw a flowchart to print all Perfect numbers between 1 to \( n \).
13. Draw a flowchart to check whether a number is Strong number or not.
14. Draw a flowchart to print all Strong numbers between 1 to \( n \).
15. Draw a flowchart to check Whether a Number is Palindrome or Not
16. Draw a flowchart to find the sum of the series \( 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \cdots \).
17. Draw a flowchart to display the \( n \) terms of harmonic series and their sum. \( 1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{5} \ldots \frac{1}{n} \) terms
18. Draw a flowchart to print the Floyd's Triangle.

\[
\begin{array}{c}
1 \\
01 \\
101 \\
0101 \\
10101 \\
\end{array}
\]
19. Draw a flowchart to display the sum of the series \( 1 + x + \frac{x^2}{2!} + \frac{x^3}{3!} + \cdots \).
20. Draw a flowchart to find the sum of the series \( x - x^3 + x^5 + \ldots \).
21. Draw a flowchart to find the sum of the series \( 1 + 11 + 111 + 1111 + \ldots n \) terms
22. Draw a flowchart to find the number and sum of all integer between 100 and 200 which are divisible by 9.
23. Draw a flowchart to convert a decimal number into binary without using an array.
24. Draw a flowchart to convert a binary number into a decimal number without using array, function and while loop.
25. Draw a flowchart to print Pascal triangle upto \( n \) rows.