

Here are 20 practice questions covering \*\*flowcharts, pseudocode, variables, data types, conditional statements, and loops\*\*:

### ### Flowchart and Pseudocode:

1. Draw a flowchart and write pseudocode to find the largest of three numbers.
2. Create a flowchart and pseudocode to compute the sum of the first 10 natural numbers.
3. Design a flowchart and pseudocode to calculate the factorial of a given number.
4. Write a flowchart and pseudocode to determine if a given number is even or odd.
5. Develop a flowchart and pseudocode for a program that calculates the average of five input numbers.

### ### Variables and Data Types:

6. Write a program that declares variables of different data types and prints their values.
7. Create a program that converts a temperature from Celsius to Fahrenheit and vice versa.
8. Write a program to swap two variables without using a third variable.
9. Implement a program to calculate the area and circumference of a circle given the radius.
10. Write a program to declare and initialize variables to store a student's name, age, and grade, then print them.

### ### Conditional Statements:

11. Write a program to check if a number is positive, negative, or zero using conditional statements.
12. Create a program to find the largest of three numbers using `if-else` statements.
13. Write a program that accepts a user's age and checks if they are eligible to vote ( $\text{age} \geq 18$ ).
14. Implement a program to determine whether a year is a leap year or not.
15. Write a program that simulates a basic calculator with operations like addition, subtraction, multiplication, and division using conditional statements.

### ### Loops:

16. Write a program that prints the multiplication table of a given number using a `for` loop.
17. Create a program to calculate the sum of all even numbers between 1 and 100 using a `while` loop.
18. Write a program that calculates the factorial of a number using a `for` loop.
19. Implement a program that checks if a given number is prime using a loop.
20. Write a program to reverse a given number using a `while` loop.