1. Divisibility Checker

Write a program that asks the user to enter two **positive integers** `a` and `b`. The program should check whether `a` is divisible by `b` and output an appropriate message. The program should validate the inputs to ensure they are positive integers and that `b` is not zero.

2. Password Validator

Write a program that **validates a password** based on the following criteria:

- At least **8 characters** long
- Contains both **uppercase and lowercase letters**
- Contains at least **one numerical digit**
- Contains at least **one special character** (e.g., `!`, `@`, `#`, `?`, etc.)

3. Simple Calculator

Write a program that acts as a simple calculator. It should:

- Ask the user to enter two numbers.
- Ask the user to choose an operation: addition (`+`), subtraction (`-`), multiplication (`*`), or division (`/`).
- Perform the operation and display the result.
- Include error handling for division by zero and invalid inputs.

4. **Recursive Function**

5. Sum of Positive Numbers

   Write a program that keeps asking the user to enter positive numbers and calculates their sum. The program should stop asking when the user enters a negative number.

6. Collatz Conjecture

Write a program that takes any positive integer `n` from the user and prints the sequence according to the Collatz conjecture:

- If `n` is even, the next number is `n / 2`.
- If `n` is odd, the next number is `3n + 1`.

The sequence ends when it reaches `1`. Use a `while` loop.

7. User Menu Selection

   Create a program that displays a menu with options and uses a while loop to allow the user to select options until they choose to exit.

   Menu:
   1. Option A
   2. Option B

3. Option C
4. Exit
Enter your choice:

8. Finding the Maximum Number
   Write a program that finds the maximum number in a list using a `for` loop.

9. Filtering Even Numbers
   Write a program that filters out odd numbers from a list and creates a new list of even numbers using a for loop

10. Finding Prime Numbers
    Write a program that finds and prints all prime numbers between 2 and 50 using a for loop.