1. **Arithmetic Operators:**
   - Write a Java program that uses all five arithmetic operators (`+`, `-`, `*`, `/`, `%`) on two numbers and prints the results.
2. **Increment and Decrement:**
   - Demonstrate the difference between pre-increment (`++x`) and post-increment (`x++`) by printing their effects on a variable's value.
3. **Logical Operators:**
   - Test a combination of logical operators (`&&`, `||`, `!`) in a Java program. Create expressions that evaluate to TRUE and FALSE.
4. **Assignment Operators:**
   - Write a program that uses all assignment operators (`+=`, `-=`, `*=`, `/=`, `%=`) to update the value of a variable and prints the final result after each operation.
5. **Comparison Operators:**
   - Compare two numbers using all the comparison operators (`==`, `!=`, `>`, `<`, `>=`, `<=`) and print whether the condition is TRUE or FALSE.
6. **Bitwise Operators:**
   - Create a program that uses bitwise operators (`&`, `|`, `^`, `~`, `<<`, `>>`) to manipulate and print binary values.
7. **Practical Use of Logical and Comparison Operators:**
   - Combine logical and comparison operators to create an expression that checks if a number is between 10 and 20.
8. **Explore Modulus:**
   - Write a program to print the remainder of numbers from 1 to 10 when divided by a constant value.