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| **Practical – 2**  **Aim: To learn operators, decision making and looping in java.** |

**1. Write a Java program to take three numbers as command line arguments and print the maximum number.**

**2. Write a Java program to take two floating-point numbers from the command line and print their sum, difference, product, quotient, and modulus.**

**3. Write a Java program using switch to display the day of the week when a number (1 to 7) is entered. Example: 1 → Monday, 2 → Tuesday, etc.**

**4. Write a Java program to check whether a given number is even or odd using a command line argument.**

**5. Write a Java program to find the sum of digits of a number using a command line argument. Example: 123 → 1+2+3 = 6**

**6. Write a Java program to check if the given number is a perfect number or not. (A number is perfect if sum of its divisors excluding itself is equal to the number.) Example: 28 → 1+2+4+7+14 = 28**

**7. Write a Java program to generate and print n terms of the Harmonic series. Harmonic series: 1 + 1/2 + 1/3 + 1/4 + ...**

**8. Write a Java program to print all factors of a given number using a command line argument.**

**9. Write a Java program to find the maximum and minimum of four numbers using nested if-else.**

**10. Write a Java program to show widening and narrowing typecasting between int, float, and double.**

**11. Write a Java program to print all prime numbers between 1 and n using: (a) for loop (b) while loop (c) do-while loop**

**12. Write a Java program to print a number triangle. Example for n = 4:**  
1  
12  
123  
1234

**13. Write a Java program to declare an int variable x = 5 and test these increment and decrement statements:**  
System.out.println(++x);  
System.out.println(x--);  
System.out.println(x);  
System.out.println(--x);  
System.out.println(x++);  
System.out.println(x);  
Add comments on output.

**14. Write a Java program to declare three variables a = 5, b = 2.5, c = 4.0, and display the result of:**  
System.out.println(a + b \* c);  
System.out.println(++a \* b - c);  
System.out.println(a / b + c);  
Add comments explaining operator precedence.