

1. *Sum of Two Numbers using Method*

Topics: Method, Data Types, Variables

Problem:

Write a Java method named addNumbers(int a, int b) that takes two integers and returns their sum. In the main() method, prompt the user for two integers, pass them to the method, and print the result.

2. *Check Even or Odd*

Topics: Data Types, If-Else, Operator

Problem:

Take an integer input from the user and check whether it is even or odd using the modulus operator and if-else condition.

3. *Grade Calculator using If-Else-If*

Topics: If-Else-If, Data Types

Problem:

Accept marks out of 100 from the user and print the grade using the following criteria:

* Marks \geq 90: Grade A

* Marks \geq 75: Grade B

* Marks \geq 50: Grade C

* Marks < 50: Grade D

4. *Simple Calculator using Switch*

Topics: Switch, Operator, Method

Problem:

Create a method calculate(int a, int b, char operator) that performs addition, subtraction, multiplication, or division based on the operator using a switch statement.

5. *Print 1 to N using While Loop*

Topics: While Loop, Variables

Problem:

Write a Java program that uses a while loop to print numbers from 1 to N (N entered by the user).

6. *Find Maximum of Three Numbers*

Topics: If-Else-If, Data Types, Method

Problem:

Write a method findMax(int a, int b, int c) that returns the largest of three integers using if-else-if.

7. *Check Leap Year*

Topics: If-Else, Operator

Problem:

Write a Java program to check whether a year entered by the user is a leap year or not using if-else.

8. *Print Table of a Number using While Loop*

Topics: While Loop, Operator

Problem:

Take a number from the user and print its multiplication table up to 10 using a while loop.

9. *Check Vowel or Consonant*

Topics: Switch, Data Types

Problem:

Take a character input from the user and check if it is a vowel or consonant using switch-case.

10. *Find Power of a Number*

Topics: While Loop, Operator, Method

Problem:

Create a method power(int base, int exponent) that calculates the power using a while loop (e.g., $\text{base}^{\text{exponent}}$).