

1. Write a simple program that prints your name and ID.

Answer:

```
public class Task1 {  
    public static void main(String[] args) {  
        String myName = "Samia Khan Trisha";  
        int myID = 34103280;  
        System.out.println("Name: " + myName);  
        System.out.println("ID: " + myID);  
    }  
}
```

2. Create a basic calculator for addition, subtraction, multiplication, and division.

Answer:

```
import java.util.Scanner;  
class Task2{  
    public static void main(String[] args) {  
        char operator;  
        Double number1, number2, result;  
        Scanner input = new Scanner(System.in);  
        System.out.println("Choose task: 1 ,2 ,3 ,4");  
        operator = input.next().charAt(0);  
        System.out.println("Enter first number");  
        number1 = input.nextDouble();  
        System.out.println("Enter second number");  
        number2 = input.nextDouble();  
        switch (operator) {  
            case '1':  
                result = number1 + number2;  
                System.out.println(number1 + " + " + number2 + " = " +  
result);  
                break;  
            case '2':  
                result = number1 - number2;  
                System.out.println(number1 + " - " + number2 + " = " +  
result);  
                break;  
            case '3':  
                result = number1 * number2;  
                System.out.println(number1 + " * " + number2 + " = " +  
result);  
                break;  
            case '4':  
                result = number1 / number2;  
                System.out.println(number1 + " / " + number2 + " = " +  
result);  
                break;  
            default:  
                System.out.println("Invalid operator!");  
                break;  
        }  
        input.close();  
    }  
}
```

3. Create a program that finds the maximum and minimum values in an array of Integers.

Answer:

```
import java.util.Arrays;

public class Task3 {

    static int max;
    static int min;

    public static void max_min(int my_array[]) {
        max = my_array[0];
        min = my_array[0];
        int len = my_array.length;

        for (int i = 1; i < len - 1; i += 2) {

            if (i + 1 >= len) {
                if (my_array[i] > max) max = my_array[i];
                if (my_array[i] < min) min = my_array[i];
            } else {
                if (my_array[i] > my_array[i + 1]) {
                    if (my_array[i] > max) max = my_array[i];
                    if (my_array[i + 1] < min) min = my_array[i + 1];
                } else {
                    if (my_array[i] < min) min = my_array[i];
                    if (my_array[i + 1] > max) max = my_array[i + 1];
                }
            }
        }
    }

    public static void main(String[] args) {
        int[] my_array = {25, 14, 56, 15, 36, 56, 77, 18, 29, 49};

        max_min(my_array);
        System.out.println("Original Array: " + Arrays.toString(my_array));
        System.out.println("Maximum value for the above array = " + max);
        System.out.println("Minimum value for the above array = " + min);
    }
}
```

4. Write a program that can print a “Chessboard” like below:

```
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
1 0 1 0 1 0 1 0
0 1 0 1 0 1 0 1
```

Here,

1 represents black squares

0 represents white squares

Answer:

```
public class Task4 {  
    public static void main(String[] args) {  
        int size = 8;  
        for (int row = 0; row < size; row++) {  
            for (int col = 0; col < size; col++) {  
                if ((row + col) % 2 == 0) {  
                    System.out.print("1 ");  
                } else {  
                    System.out.print("0 ");  
                }  
            }  
            System.out.println();  
        }  
    }  
}
```

5. Create a program that finds the sum of 0 to n.

Answer:

```
import java.util.Scanner;  
  
public class Task5 {  
    public int sumUpToN(int n) {  
        int sum = 0;  
        for (int i = 1; i <= n; i++) {  
            sum += i;  
        }  
        return sum;  
    }  
  
    public static void main(String[] args) {  
        Task5 task = new Task5();  
        Scanner scanner = new Scanner(System.in);  
        System.out.print("Enter a value for n: ");  
        int n = scanner.nextInt();  
        int sum = task.sumUpToN(n);  
        System.out.println("Sum of integers from 1 to " + n + " is: " + sum);  
        scanner.close();  
    }  
}
```

