Part 11: Loop & Branching - Java Challenges & Code

1. Print multiplication table for a number

```
import java.util.Scanner;

public class MultiplicationTable {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = sc.nextInt();

        for (int i = 1; i <= 10; i++) {
            System.out.println(num + " x " + i + " = " + (num * i));
        }
    }
}
```

2. Use break and continue in loops

```
public class BreakContinueExample {
    public static void main(String[] args) {
        for (int i = 1; i <= 10; i++) {
            if (i == 5)
                continue;
            if (i == 8)
                break;
            System.out.println(i);
        }
    }
}
```

3. Find factorial of a number

```
import java.util.Scanner;

public class Factorial {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = sc.nextInt();
        long fact = 1;

        for (int i = 1; i <= num; i++) {
            fact *= i;
        }

        System.out.println("Factorial: " + fact);
    }
}
```

4. Print Fibonacci series

```
import java.util.Scanner;

public class FibonacciSeries {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter count: ");
        int count = sc.nextInt();

        int a = 0, b = 1;
        System.out.print("Fibonacci: " + a + " " + b + " ");
        for (int i = 2; i < count; i++) {
            int c = a + b;
            System.out.print(c + " ");
            a = b;
            b = c;
        }
    }
}
```

5. Find sum of even numbers from 1 to 100

```
public class SumEvenNumbers {
    public static void main(String[] args) {
        int sum = 0;
        for (int i = 2; i <= 100; i += 2) {
            sum += i;
        }
        System.out.println("Sum of even numbers from 1 to 100: " + sum);
    }
}
```