// ------------------------------------------

// Author: Lauren Escobedo

// Assignment: Chapter 23 Problem 23.19

// Date: 04/12/2023

// Language: Java

// File Name: Exercise\_23\_19.java

// Description: Exercise 23\_19

// - Calculating the Sum of the Squares

// ------------------------------------------

import java.util.Arrays;

import java.util.stream.\*;

import java.util.List;

public class Exercise\_23\_19 {

public static void main(String[] args) throws Exception {

int[] values = {3, 10, 6, 1, 4, 8, 2, 5, 9, 7};

List<Integer> streamValues = Arrays.asList(3, 10, 6, 1, 4, 8, 2, 5, 9, 7);

// Display original values

System.out.print("Original values: ");

System.out.println(IntStream.of(values)

.mapToObj(String::valueOf)

.collect(Collectors.joining(" ")));

// Sum of squares with map and sum

System.out.printf("\nSum of squares via map and sum: %d%n%n",

IntStream.of(values)

.map(x -> x \* x)

.sum());

// Sum of squares with reduce method

System.out.printf("Sum of squares via reduce: %s%n%n",

streamValues.stream().reduce(0, (a, b) -> a + b \* b));

System.exit(0);

}

}

