**Exercise 4: Arrange-Act-Assert (AAA) Pattern, Test Fixtures, Setup and Teardown Methods in Junit**

import org.junit.After;

import org.junit.Before;

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

private Calculator calculator;

@Before

public void setUp() {

calculator = new Calculator();

System.out.println("Setup: Calculator instance created.");

}

@After

public void tearDown() {

calculator = null;

System.out.println("Teardown: Calculator instance cleared.");

}

@Test

public void testAddition() {

int a = 10;

int b = 5;

int result = calculator.add(a, b);

assertEquals(15, result);

}

@Test

public void testSubtraction() {

int a = 10;

int b = 4;

int result = calculator.subtract(a, b);

assertEquals(6, result);

}

}

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public int subtract(int a, int b) {

return a - b;

}

}

Output:

