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

package com.example;

import org.junit.Before;

import org.junit.After;

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("Setting up Calculator instance...");

}

@After

public void tearDown() {

calculator = null;

System.out.println("Tearing down Calculator instance...");

}

@Test

public void testAdd() {

int a = 10;

int b = 5;

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

assertEquals(15, result);

}

@Test

public void testAddWithNegativeNumber() {

int a = -3;

int b = 7;

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

assertEquals(4, result);

}

}

