JUnit Basic Testing Exercise

# Exercise 1: Setting Up JUnit

public class Calculator {  
 public int add(int a, int b) {  
 return a + b;  
 }  
}  
  
  
**JUnit Test:**  
  
import org.junit.jupiter.api.Test;  
import static org.junit.jupiter.api.Assertions.\*;  
  
public class CalculatorTest {  
 @Test  
 public void testAdd() {  
 Calculator c = new Calculator();  
 assertEquals(5, c.add(2, 3));  
 }  
}

# Exercise 3: Assertions in JUnit

@Test  
public void testAssertions() {  
 assertEquals(10, 5 + 5);  
 assertTrue(3 < 4);  
 assertFalse(10 < 5);  
 assertNotNull("Hello");  
}

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

import org.junit.jupiter.api.\*;  
public class LifeCycleExampleTest {  
 static int counter;  
  
 @BeforeAll  
 static void initAll() {  
 counter = 0;  
 }  
  
 @BeforeEach  
 void init() {  
 System.out.println("Before Each Test");  
 }  
  
 @Test  
 void testOne() {  
 counter++;  
 Assertions.assertEquals(1, counter);  
 }  
  
 @AfterEach  
 void tearDown() {  
 System.out.println("After Each Test");  
 }  
  
 @AfterAll  
 static void done() {  
 System.out.println("After All Tests");  
 }  
}

**Output:**  
Before Each Test  
After Each Test  
After All Tests