Exercise 1: Setting Up JUnit

import org.junit.Test;

import static org.junit.Assert.\*;

public class Main {

static class Calculator {

public int add(int a, int b) {

return Math.addExact(a, b);

}

public int subtract(int a, int b) {

return Math.subtractExact(a, b);

}

public int multiply(int a, int b) {

return Math.multiplyExact(a, b);

}

public int divide(int a, int b) {

if (b == 0) {

throw new IllegalArgumentException("Cannot divide by zero");

}

return a / b;

}

}

public static class CalculatorTest {

Calculator calc = new Calculator();

@Test

public void testAdd() {

assertEquals(8, calc.add(5, 3));

}

@Test

public void testSubtract() {

assertEquals(2, calc.subtract(5, 3));

}

@Test

public void testMultiply() {

assertEquals(15, calc.multiply(5, 3));

}

@Test

public void testDivide() {

assertEquals(2, calc.divide(6, 3));

}

@Test(expected = IllegalArgumentException.class)

public void testDivideByZero() {

calc.divide(1, 0);

}

}

}**Output:**

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