Setting up Junit

1. **Create a new Java project** in your preferred IDE (IntelliJ IDEA or Eclipse)
   * In IntelliJ: File → New → Project → Java
   * In Eclipse: File → New → Java Project
2. **Add JUnit dependency**:

**For Maven projects** (add to pom.xml):

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>4.13.2</version>

<scope>test</scope>

</dependency>

</dependencies>

**For Gradle projects** (add to build.gradle):

dependencies {

testImplementation 'junit:junit:4.13.2'

}

**For non-build tool projects**:

* Download the JUnit JAR from <https://junit.org/junit4/>
* Add it to our project's classpath

**Create a test class**:

import org.junit.Test;

import static org.junit.Assert.\*;

public class CalculatorTest {

@Test

public void testAddition() {

Calculator calculator = new Calculator();

int result = calculator.add(2, 3);

assertEquals(5, result);

}

@Test

public void testSubtraction() {

Calculator calculator = new Calculator();

int result = calculator.subtract(5, 2);

assertEquals(3, result);

}

}

**Create the class to test** (e.g., Calculator.java):

public class Calculator {

public int add(int a, int b) {

return a + b;

}

public int subtract(int a, int b) {

return a - b;

}

}

**Run the tests**:

* Right-click on the test class in your IDE and select "Run Tests"
* Or use the Maven command: mvn test
* Or use the Gradle command: gradle test