**Junit individual assignment**

**JUnits Tests**

*Unit testing* is a method of testing source code that verifies that individual units are working properly. A unit of code refers to the smallest testable part of an application, in Java this corresponds to a method. JUnit is a Java package that implements unit testing. Eclipse provides tools to automate the creation of JUnit tests. It also provides a good interface for running the tests. Together these two tools make systematically testing your program very easy. In this lab we'll learn how.

**Creating JUnit Tests**

1. Right click on your Classname --> New --> JUnit Test Case --> Next.
2. Select the methods you want to test. Click "Finish".
3. Fill in tests appropriately. See [Assert Types](http://junit.sourceforge.net/javadoc/org/junit/Assert.html) for a list of possible asserts.
4. To run JUnit Tests, right click on the test class --> Run As --> JUnit Test.

For this assignment you need to carry out Junit testing on the following Java class, which uses static methods to perform arithmetic operations on two integers.

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\* The Calculator class provides static methods for

\* arithmetic operations on two integers.

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public class Calculator {

public static int add(int number1, int number2) {

return number1 + number2;

}

public static int sub(int number1, int number2) {

return number1 - number2;

}

public static int mul(int number1, int number2) {

return number1 \* number2;

}

// Integer divide. Return a truncated int.

public static int divInt(int number1, int number2) {

if (number2 == 0) {

throw new IllegalArgumentException("Cannot divide by 0!");

}

return number1 / number2;

}

}

**Steps:**

1. Create a new Eclipse Java project called "JUnitTest".
2. Create a new class called "Calculator" under "src" folder, with the above program code.
3. Create the first test case called "CalculatorTest" ⇒ Right-click on folder "test" ⇒ New ⇒ Other ⇒ Java ⇒ JUnit ⇒ JUnit Test Case ⇒ New JUnit 4 test ⇒ In Name, enter "CalculatorTest".
4. Write test cases to test the four calculator operations
5. Zip and submit your project on d2l. If you are having problem exporting the project, just navigate to where you saved your project, zipped and submit it as a zipped folder.