

# Lab 3

## JUnit

**Submission: Autolab and Gitlab**

*This document describes the lab 3 JUnit assignment in detail. Please read this document carefully before submitting your assignment.*

This assignment has only one problem worth 40 points. You are provided with a class "Die.java". This file contains the implementation of a die.

### **PART A:**

The first part of the assignment is to understand the given code. The given code is fully functional and does not require you to make any changes. Please refer to this file to understand what each method does.

#### **Die Constructor**

<b>Constructor and Description</b>
<i>Die()</i> Constructs a die with 6 sides (DEFAULT_SIDES) and initial result at 1.
<i>Die(int numSides)</i> Constructs a die with numSides and initial result at 1.

#### **Die Method Summary**

<b>Modifier and Type</b>	<b>Method and Description</b>
public int	<b>roll()</b> Rolls a die and returns the result of the roll. Also, sets the result to be the current value of roll.
public int	<b>getNumSides()</b> Returns the number of sides in the die.
public int	<b>getResult()</b> Returns the result of the last roll
public int	<b>equals(Object otherObj)</b> Returns true if they are same class, have the same number of sides, and have the same result.
public String	<b>toString()</b> Returns a string containing information about

	the die
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## PART B:

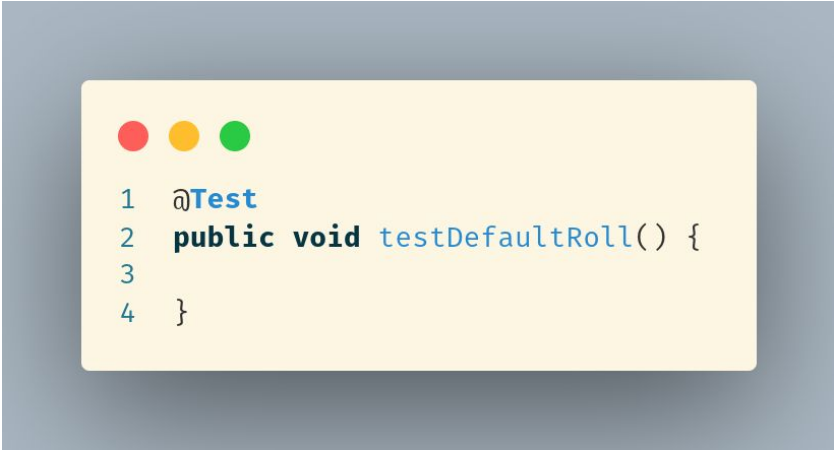
The second part of the assignment is to write a tester file for this class. (We will see an example of how to do this in class.)

You will create two different objects: a default and one with 5-sides. A default object is created with the default constructor and the 5-sided die with the one-parameter constructor. The tester files should have the following test cases:

Test Method	Description
<b>testDefaultRoll</b>	Tests the roll of a die with the default sides
<b>test5SideRoll</b>	Tests the roll of a die with 5 sides
<b>testDefaultNumSides</b>	Tests the getNumSides of default die
<b>test5NumSides</b>	Tests the getNumSides of a 5-sided die
<b>testGetDefaultResult</b>	Tests the result of a default die
<b>testGet5SideResult</b>	Test the result of a 5 sided die
<b>testEqualsTrue</b>	Test two equal objects
<b>testEqualsFalse</b>	Test two different (not equal) objects
<b>testDefaultToString</b>	Test the toString for default die
<b>test5SideToString</b>	Test the toString for a 5-sided die

Example:

If you are trying to implement testDefaultRoll:



```

1  @Test
2  public void testDefaultRoll() {
3
4  }
```

**NOTE:**

- The given method names must be the same in the tester file for you to receive points. The grading script won't recognize any other methods.
- The file must be named **DieTester.java**
- The auto-grading script is still in the beta version. This means the Autolab score might not be your final grade. I will manually check for all the work and adjust the grade accordingly.

**Submission**

All your work must be submitted in both GitLab([gitlab.cs.uno.edu](https://gitlab.cs.uno.edu)) and Autolab ([autolab.cs.uno.edu](https://autolab.cs.uno.edu)) for you to receive full credit.

Your final submission will contain a file named "DieTester.java" which contains all the tests mentioned above. You can submit your work for partial credit too and can be submitted unlimited times.

**Resources**

- All our lab videos will be posted on our website along with the code we do in class. Please refer to the code section of our website for a sample code.
- If you get stuck, use the helpdesk before you seek help elsewhere. The help desk is there to help you if you are stuck (setting up, assignment, any concepts that are not clear). Help desk links and hours are posted on the website.

**Grading**

If you have all the tests and is working fine you will receive 40 points. Points will be taken off if all tests are not present and if the tests are incomplete.