**CS Arrays Unit Lab: Tally and Histogram**

*Learning Target: I will write a program that uses for loops and arrays to store a large amount of information with few lines of code.*

Write a Java program that rolls 2 dice **1000 times**. **Use an array** to tally the number of times each combination occurs. Print out a frequency table with the tallies. (Hint: check **Creating an array of tallies** slide in the Unit 7 PowerPoint**)**

**OUTPUT example with 1000 rolls:**

**Roll Frequency** 2 35  
 3 59  
 4 85  
 5 101  
 6 150  
 7 152  
 8 139  
 9 110  
 10 87  
 11 54  
 12 28

When making your array, keep the following in mind:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Index | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Element |  |  |  |  |  |  |  |  |  |  |  |
| Represents | 2’s | 3’s | 4’s | 5’s | 6’s | 7’s | 8’s | 9’s | 10’s | 11’s | 12’s |

**Rubric**

* Program is named DiceSum.java
* Program has a comment header
* Program has proper indentation
* Uses an array for the counters
* Loops 1000 times
* Randomly generates two dice each iteration of the loop and finds the sum
* Increases the appropriate counter
* Prints out the results in the array after the loop
* Results are in the proper table/tab format
* Does not use any if statements