CSC 2310 – Spring 2016
Homework #4
Due 11/3/2016 11:30 pm

Submission Requirements
You must turn work at the SPECIFIED TIME so you can receive credit for Homework! Homework 2 part a must be completed in myprogramminglab.com and part b ***must be submitted on brightspace*** *by the due date and time. Late homework will be subject to a penalty, as stated in the course grading policy. No email or hard copies of homework will be accepted.*

You may discuss the assignments with other students in the class, but (as stated in the academic honesty policy) your written answers ***must be your own****, and you must list the names of other students you discussed the assignment with.*

How to Submit

This homework has two parts - one part must be done in myprogramminglab.com *- the other part must be done in Eclipse and your .java and .class files uploaded to brightspace. Please follow the directions carefully for each part.*
This homework is worth 2 individual grades so be prepared to spend some time on it!

Part a - MPL
Do all the questions from section 12.2, 12.3 and MPL Extra. Be sure to submit each of your answers. You get 3 tries, so if your answer is incorrect, you can still try again. There are 25 questions in these sections so do not wait until the last minute!

Part b - Eclipse/Java

1. Write a method `writeSequence` that accepts an integer *n* as a parameter and prints a symmetric sequence of *n* numbers with descending integers ending in 1 followed by ascending integers beginning with 1, as in the table below:

Call	Output
`writeSequence(1);`	`1`
`writeSequence(2);`	`1 1`
`writeSequence(3);`	`2 1 2`
`writeSequence(4);`	`2 1 1 2`
`writeSequence(5);`	`3 2 1 2 3`
`writeSequence(6);`	`3 2 1 1 2 3`
`writeSequence(7);`	`4 3 2 1 2 3 4`
`writeSequence(8);`	`4 3 2 1 1 2 3 4`
`writeSequence(9);`	`5 4 3 2 1 2 3 4 5`
`writeSequence(10);`	`5 4 3 2 1 1 2 3 4 5`

Notice that for odd numbers the sequence has a single 1 in the middle while for even values it has two 1s in the middle. A client using this method would have to call `println` to print the line of output.

2. Write the complete Board.java class and the complete solveQueens.java class that will solve the "8 Queens" problem described in the slides provided in BrightSpace. The slides provide partial solution to the problem.
   Your program should print the solution in the following format.

   One solution is as follows:

```
Q - - - - - - -
- - - - - - - Q -
- - - - Q - - -
- - - - - - - Q
- Q - - - - - -
- - - Q - - - -
- - - - - Q - -
- - Q - - - - -
```