

CS146 Project 4  
Grading Rubric

Student Name: \_\_\_\_\_

Points out of Total  
/20

**Problem 1 (Board Data Type)**

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**1. Performance Requirement:**

a. Implementation should support all Board methods in time proportional to  $N^2$  (or better) in the worst case ( with the exception that `isSolvable()` may take up to  $N^4$  in the worst case)

**Problem 2 (Solver Data Type)**

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**1. Corner Cases:**

a. constructor should throw a `java.lang.NullPointerException` if the initial board is null and a `java.lang.IllegalArgumentException` if the initial board is not solvable.

**Other Requirements**

1. Well formatted code (indentation)
2. Code compilation is successful
3. Code runs with no errors and meet the output

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**Meeting Deadline**

On time: no penalty, 1 day late: (-20%), 2 days late -60%

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Total Score:

\_\_\_\_\_/ 20

Graders Comments: