

## CS 106A Midterm Exam – Answer Booklet

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This is an open-textbook, closed-note exam. You may refer to the Karel the Robot Learns Java reader and the Art & Science of Java textbook, but you may not use any printed paper resources or computing devices of any kind, including calculators, laptops, cell phones, or other devices.

Unless otherwise indicated, you will be graded on functionality only – but good style helps graders understand what you were attempting. **Remember that you must write the solution to a problem in that problem's provided answer pages in this booklet. Answers to a problem outside of its designated answer pages in this booklet, or written in the question booklet, will receive no credit.** You do not need to write any import statements. Unless otherwise specified, you may write helper methods to implement required behavior if you like. Do not abbreviate code; you must write out all code that is part of your answer. If you want to utilize code found in the textbooks, you may cite the page number and code sample without rewriting that code. Pay attention to whether a question requires you to write a complete Java program, or just individual methods.

You have 2 hours to complete this exam.

First Name: \_\_\_\_\_

Last Name: \_\_\_\_\_

SUNET ID (e.g. jdoe) \_\_\_\_\_

Section Leader / Grader: \_\_\_\_\_

I accept the letter and spirit of the Honor Code. I have never given nor received any unpermitted aid on this exam, and promise to address/report anyone who fails to follow the Honor Code.

(sign here) \_\_\_\_\_

1) Karel the Robot.....	[20 points]
2) Java Statements and Expressions.....	[20 points]
3) Console Programs.....	[25 points]
4) Graphics Programs.....	[20 points]
5) Text Processing.....	[35 points]
Total: 120 points	

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**Problem 1**







**Problem 2(a)**

i. \_\_\_\_\_

ii. \_\_\_\_\_

iii. \_\_\_\_\_

iv. \_\_\_\_\_

v. \_\_\_\_\_

**Problem 2(b)**

**X coordinate:** \_\_\_\_\_

**Y coordinate:** \_\_\_\_\_

**Width:** \_\_\_\_\_

**Height:** \_\_\_\_\_

**Color:** \_\_\_\_\_









**Problem 3**







**Problem 4**









**Problem 5(a)**







**Problem 5(b)**







