Midterm Review

Topics

Includes, but not limited to:

*Reasoning with assertions:
◦ forward, backward, loops, ifs

*Stronger/Weaker:
◦ assertions, specs, code

*RI/AF

*ADT

*JavaDoc

*White-box/Black-box

*Equals and Hashcode

*Overriding/Overloading

*Subclassing/Subtyping

You will NOT be tested on generics.

Sample Midterms (and Solutions)

15wi Midterm - Here is the header for a method that computes a student's overall score and adds that information to a gradebook data structure.

void addScore(String name, List<Double> scores, Map<String,Double> gradeBook);

(a) (3 points) Here are two possible specifications for this method:

- @requires name != null and scores != null and gradeBook != null
- @modifies gradeBook
- @effects add a mapping <name, overallScore> to gradebook

- @requires name != null and scores != null
- @modifies gradeBook
- @effects add a mapping <name, overallScore> to gradeBook
- @throws IllegalArgumentException if gradeBook is null

Which specification is stronger than the other?

Questions?