

Marine Biology Simulation Case Study

Appendix A

Testable Classes and Concepts

The AP Computer Science Course Description and AP Computer Science Java Subset list the topics, concepts, and Java language constructs that are part of the AP Computer Science A and AB curricula and may be tested on the AP Exams. This appendix lists additional classes and terms from the marine biology simulation case study that may be tested on the exams. It also lists classes and terms that appear in the case study code, class documentation, or narrative but will not be tested. Items labeled (AB only) may be tested on the AB exam but will not be tested on the A exam.

Classes and Terminology

Chapter	May appear in test questions	Will NOT be tested
1		SimpleMBSDemo1 SimpleMBSDemo2 MBSGUI terms: <i>driver</i>
2	Simulation (implementation) Environment (documentation) Fish (implementation) Debug (documentation) Direction (documentation) EnvDisplay (documentation) Locatable (documentation) Location (documentation) RandNumGenerator (documentation) ArrayList: <code>remove(Object)</code> method (and other methods in the AP subset) Color: constructor and constants in Quick Reference terms: <i>boundary tests, client code, dynamic binding, field, instance variable, override, pseudo-code, redefine, timestep</i>	Fish: <code>nextAvailableID</code> class variable Direction: <code>FULL_CIRCLE</code> constant; <code>hashCode</code> and <code>roundedDir</code> methods Location: <code>hashCode</code> method visibility rules of <code>protected</code> keyword implementation of black-box classes terms: <i>black box, black-box and code-based tests, class variable, consistent and inconsistent state, pseudo-random, seed</i>

Chapter	May appear in test questions	Will NOT be tested
3	Fish(modified implementation) terms: <i>pseudo-code</i>	
4	DarterFish(implementation) SlowFish(implementation) redefinition of public and protected methods terms: <i>dynamic binding,</i> <i>override, redefine</i>	terms: <i>regression testing,</i> <i>probabilistic vs.</i> <i>deterministic methods</i>
5	Environment (complete interface) BoundedEnv (implementation) (AB only) UnboundedEnv (implementation) (AB only)	SquareEnvironment terms: <i>row-major order,</i> <i>contract</i>