

CSci 4651 Spring 2006
Problem Set 9: Simula, Smalltalk, C++, Java.
Due Friday, May 5.

Problem 0. Finish and submit the C++ lab.

Problem 1. Exercise 11.1 p. 327, parts a to d.

Problem 2. Exercise 11.5 p. 331.

Problem 3. Suppose you would like to extend Smalltalk Boolean class by adding a new subclass Maybe which randomly chooses between the 'if' option and the 'else' option. Assume that you have access to a global object called Random with a method Max:Min: that returns a random integer between the maximum and the minimum integers passed to it (including the bounds). Show how you would implement the class Maybe.

Problem 4. Exercise 12.1 p. 367.

Problem 5. Exercise 12.3 p. 373, parts (i) to (iv). Here $<$: stands for “is a subtype of”. The questions asks which functions can be substituted for a function $B \rightarrow B$.

Problem 6. Exercise 12.7 p. 376.

Problem 7. Complete and submit the byte code lab if you have not done so already.

Problem 8. Exercise 13.5 p. 421.

Problem 9. Extra credit. Exercise 13.3 and/or 13.4 p. 421.