

CIS 122—Algorithms and Programming

Quiz #0

19 July, 2004

Some preliminary information to help us get started quickly. Your answers can be as short or as long as you like, and I'm not looking for a "right answer"; this helps me to understand your background.

1. Why are you taking this class?
2. Do you have prior programming experience? If so, what?
3. What do you understand each of the following terms to mean? (Remember that I'm not asking you to find the right definition here: if a term is unfamiliar, please say so)
 - representation
 - abstraction
 - information hiding
 - encapsulation
 - modularity
 - decomposition of problems
 - composition of solutions
 - induction

PROBLEM #2

Imagine you work in a rare books library. You have been asked to sort a shelf of recently-acquired rare books, which in addition to being rare are very fragile and priceless. Because of this, they cannot be handled with bare hands or placed on anything but neutral-ph surfaces. You have a suitable small table, on which you can place exactly one book at a time, and you have one glove only, for your right hand.

Describe (informally, but precisely as possible) a procedure for sorting the books.