Quiz 12

written by Alvin Wan . alvinwan.com/cs70

Thursday, March 3, 2016

This quiz does not count towards your grade. It exists to simply gauge your understanding. Treat this as though it were a portion of your midterm or final exam. "Intuition Practice" might be tricky; watch out for subtleties. "Proofs" will be challenging to start; develop an arsenal of *approaches* to starting a problem.

1 Proofs

For each of the following, determine whether or not the problem is decidable, and justify using a formal proof.

1. Determining if your CS61A quiz submission S is correct.

2. Determining if a program P terminates on line L

3. Determining if a program is a virus

4. Determining if a program contains a loop, given finite memory.

5. Determining if a program properly shuts an automatic door.