

Duane A. Bailey

Homework 0 – *Due: September 10*

Please turn in answers to the following questions on Monday, in class.

This assignment is fairly straightforward, establishing your identity in this class, and gathering a few pieces of data (which will not be associated with you) for experiments we'll conduct later. We'll also begin to formalize the notion of an *algorithm*.

1. In this course, we attempt to grade as anonymously as possible. You will be using a 2-digit *anonymous ID*, which you will find on the lower back of your syllabus. **Please remember this number.** Write that number above.
2. Print your real name:
3. What is your preferred superpower (e.g. flying, invisibility, etc.)?
4. What would be a great fortune to find in a fortune cookie?
(Be aware, we already have *You will be swallowed by a cow.*)
5. We'll frequently make use of *random integers*. They're "random" because, as they appear, we don't expect them to form patterns. (Humans, by the way, are pretty poor sources of randomness.)
Suppose we asked you to give us a series of random integers that can be written using one or two digits (ie. 00-99). Describe a *procedure* or *algorithm* to generating these values. For example, you might mention the use of dice, or observing cars in traffic, or scanning a printed newspaper. Be creative, but careful.
6. Generate and write down 20 random integers between 00 and 99, ideally using the process you described above.
7. Suppose we answered the above question, again, in an hour. Would your procedure generate the same 20 values, or would they be different? Explain.