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CS1632-DELIVERABLE 4

PROPERTY-BASED TESTING

I chose to test Arrays.sort() because I found there to be less overhead required before I could start working on the project given the limited amoutn of time I had to work on this assignment over the past week. It was also convenient to only have to put aside 1.5 hrs to work on this.   
 To figure out what to test I sat down and thought about some basic properties arrays possess. I ended up using a couple of ones we discussed in class, same results upon multiple sorts and same size before and after sorting, along with one I thought of, last number should be smaller than first number. I encountered a small problem whilst trying to address the last test, assert doesn’t have functionality for less than and greater than but that it did support boolean. So I had to do some simple math, subtracted first from last and if it was less than 0 then the first is smaller than the last, used a boolean operator to determine this and assigned the result to a variable which could then be asserted upon.

Another issue came up when doing all of the tests in one test method. I had to make deep copies of the initially generated array so the tests would test the right things and that I wouldn’t be doing calculations on already sorted arrays when I need them to be in their original state.

