

Each version of bubblesort was tested by having each algorithm sort a fixed size of integers. The largest size that was tested was 100000 random integers for worst case, and numbers 1-1000000 in order for a best case test. The results were as follows.

	Iterative	Recursive
Best Case	17.53 seconds	17 seconds
Worst Case	54.8	52.73

As seen in the results, the two algorithms are not too different in terms of timing. Both take around the same time for both best case and worst case. However, my hypothesis is that because the worst case time for recursive was 2 seconds shorter than the iterative, it probably means that the larger the size of the data that needs to be sorted is, the recursive one will take less time than the iterative. However, for best case, it seems like there is really no difference in which type of bubble sort used.

Making the array an array of short int doesn't really have a big difference. The time was relatively the same and unless there is a really good reason to use short such as saving memory on a lot of values, using int should be the same.