

doublerInsert took 782.120584 ms to complete

doublerAppend took 2.436958 ms to complete.

	ExtraLarge	tinyArray	smallArray	mediumArray	largeArray
Insert	782.120584 ms	22.083 us	22.875 us	169.667 us	10.776375 ms
Append	2.436958	59.333 us	57.25 us	125.084 us	719.792 us

For the smaller arrays the insert function was a little quicker but as the arrays got larger the append was definitely quicker. The insert function seems to scale really fast in terms of how much time it takes for the computer to get the output. For append, it stays fairly low and fast in terms of the scalability. The append function is definitely better for scaling in size because of the less amount of time it takes.

EXTRA CREDIT:

The reason insert is slower is because it has to take every number in the array and shift it down to make room for the new number to become the 0 index. Whereas in append, all its doing is pushing the new number to the end of the array so it doesn't have to account for all of the other numbers in the array