

n	append	insert
10 (tinyArray)	11.993 $\mu$ s	55.23 $\mu$ s
100 (smallArray)	8.758 $\mu$ s	11.086 $\mu$ s
1000 (mediumArray)	244.796 $\mu$ s	282.315 $\mu$ s
10000 (largeArray)	432.113 $\mu$ s	6.602121 ms
100000 (extraLargeArray)	4.144068 ms	984.716343 ms

The function `doublerAppend` has a runtime complexity of  $O(1)$ , making it scale much better than the function `doublerInsert`, which has a runtime complexity of  $O(n)$ . The `append` function is  $O(1)$  because you just add one element to the end of the array. However, in the `insert` function you add the element to the beginning of the array, meaning you have to reassign the indexes of all values. This makes the runtime dependent on the size of the array, giving it  $O(n)$ .