

List size	append	insert
extraLargeArray 100000	3.1484 ms	850.0366 ms
largeArray 10000	339.3 μ s	7.2348 ms
mediumArray 1000	1.0216 ms	1.1338 ms
smallArray 100	3 μ s	50.4 μ s
tinyArray 10	1.3 μ s	22.4 μ s

The append way of doubling numbers in an array is much faster than inserting them in the array. As shown the append almost always stays in the micro seconds until it gets into the xl array where it goes into the milliseconds. But do have a weird position for it in the medium array where it goes into the ms but then in the large array goes down into the μ s again. So it might mean that the append style might have a better sweet spot for what size on array. Where the insert is slower but consistent with its increase in time with the amount in the array. My reason for why the insert could be slower is because it has to push the already existing numbers in the array and then put in the new number in at index zero. Where the append just has to put the newest number in the next index of the array.