

Part 1

1.

ARRAY	INSERT	APPEND
tinyArray	27.2 μ s	70.2 μ s
smallArray	43.8 μ s	91.6 μ s
mediumArray	141.8 μ s	105.2 μ s
largeArray	6.9438 ms	388.3 μ s
extraLargeArray	721.7942 ms	2.5581 ms

For each of the functions, with the ever increasing arrays, the functions have a trend to increase. Based on the data collected, the smaller array is better for unshift uses while using the push method is better for bigger arrays. The append function is scaling better since it takes less time the bigger the array gets.