

function	tiny	small	medium	large	extra-large
append	115.162 μ s	169.852 μ s	164.307 μ s	688.116 μ s	7.39 ms
insert	40.163 μ s	66.127 μ s	169.279 μ s	7.23 ms	1.04 s

The append function scales better because the difference between arrays is less marked than that of the insert function. From the large to the extra-large arrays, insert takes almost 150 times longer. For the same arrays, the append function takes about 10 times longer. With smaller arrays, insert is over twice as fast as append. Once the arrays get bigger, however, insert becomes a lot slower in comparison.

The reason the insert function is so much slower is because it uses the unshift array method. The unshift array method reassigns each value in the array in order to add the new values to the beginning. The append function uses the push method, which simply adds the values at the end of the array.