|  | Append | Insert |
| --- | --- | --- |
| tArr | 97.12 µs | 38.11 µs |
| sArr | 110.02 µs | 55.66 µs |
| mArr | 153.23 µs | 160.28 µs |
| lArr | 617.11 µs | 6.26 ms |
| xlA | 11.71 ms | 935.81 ms |

As the size of the array increases each functions runtime scales at a very different rate. The function that appends grows at a linear rate or O(n), while the function that inserts grows at an exponential rate or O(n^2). Even though the append function starts out slightly slower, it's not moving everything in the array like the insert function does. Therefore the append function is better optimized to scale.