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Lab 10 Report

What I noticed from the data and the graph was that at lower array sizes, the recursive call was slightly faster than the iterative but after the 100,000 array size iterative was much more efficient than the recursive call. What I can conclude for this is that for smaller array sizes, a recursive quicksort is the best option, but for larger array sizes, an iterative quicksort is much more efficient.

Data:

|  |  |  |
| --- | --- | --- |
| Size | Iterative | Recursive |
| 100 | 45851 | 36777 |
| 1000 | 225322 | 164296 |
| 10000 | 3264750 | 1741550 |
| 100000 | 42373035 | 57442386 |
| 1000000 | 3752497351 | 5283964699 |