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Homework 13

Dr. Cusack

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The new one will not be better than the naive one because there is so much overhead with the new one. The pack method mixed with the prefix sum method adds a lot of overhead making the constants high even though it is  $\log n$  span. As such, the naive one is faster for shorter arrays. We would have to make the array size huge or increase the processors greatly before seeing any speedup from parallelizing the partition.

We deserve an 18/20 because both our partition methods and pack methods work. We tested the pack method and created a tester method for partition in parCode which works as well. We've worked significantly on the quicksort aspect of the program and are closer but we keep running into a few different errors making it so the quicksort doesn't work.