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CS 261

Amortized Analysis

1. It will take 106 units of time to push 50 elements onto an array that doubles with an original capacity of 8. After following the pattern, I found that the average time was bounded at 3 units per element inserted. This would mean that the big-oh of this algorithm is O(1)+.
2. It will take 638 units of time to push 50 elements onto an array that increases its capacity by 2 and starts with a capacity of 8. After following the patter, I found that the average time was not bounded, and so the big-oh for this algorithm is O(n).