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HW 01 – Time Complexity Analysis

1. Complexity is O(n) = n \* O(1)
   1. The loop executes n times and each call to foo(j) is a constant time O(1) (per homework instructions).
2. Complexity is O(n^2) = n \* O(n)
   1. The loop executes n times and each method call faa(n) is complexity O(n)
3. Complexity is O(nk) = n \* O(k)
   1. The loop executes n times and each method call faa(k) executes k times. Since we don’t know the relation between k and n, the overall complexity if O(n\*k).