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Final Exam

Question 7.17

7.17 Determine the running time of mergesort for

a. sorted input

b. reverse-ordered input

c. random input

It’s computed based off recursion that’s in the algorithm who’s recursion is T(N) = 2T(N/2) + N. Since merging requires the same operations, in all of the three cases the run time is O(NlogN).