

Merge Sort – Descending Initialization

- The 11 data points indicate an $O(n \log_2 n)$ relationship between list length and sorting time. The relation between length of list and time can be modeled by $n \cdot \log_2(n) / 472462081.921$.
- Prediction for the time required for Merge Sort to sort a descending (reverse sorted) list of length 10,000,000,000:
 $y(10000000000) = 703.110$ seconds or 11.72 minutes

