

Project 2

[16, 21, 11, 8, 12, 22] -> Merge Sort

1) Merge Sort Steps

[16, 21, 11, 8, 12, 22]

Seperate until an element left.

[16, 21, 11] [8, 12, 22]

[16, 21] [11] [8, 12] [22]

[16] [21] [11] [8] [12] [22]

Merge until reach the same array size before seperation.

[16, 21] [11] [8, 12] [22]

[11, 16, 21] [8, 12, 22]

[8, 11, 12, 16, 21, 22]

2) Big-O Notation

$O(n \cdot \log n)$