

Kabir Bose (100862410)

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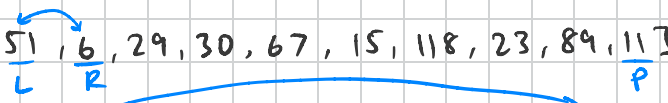
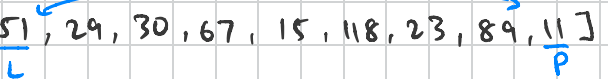
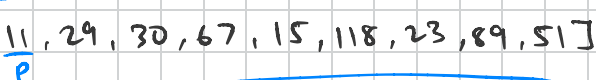
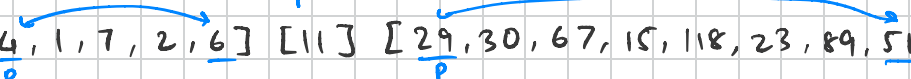
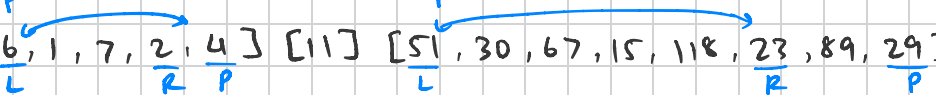
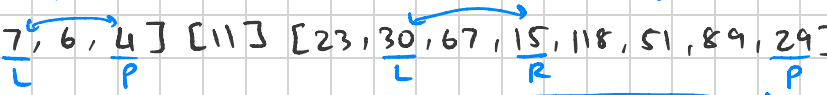
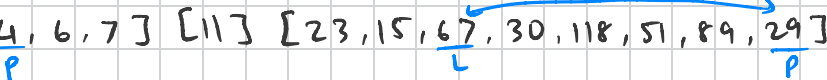
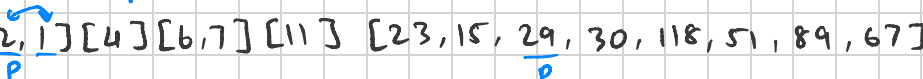
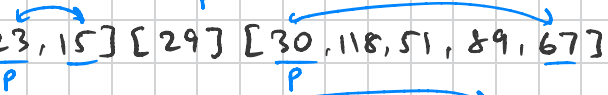
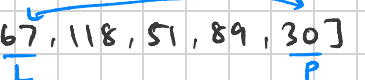
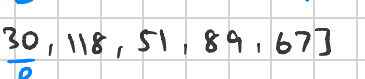
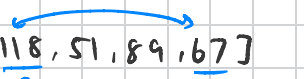


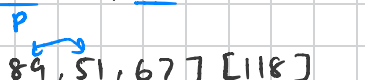
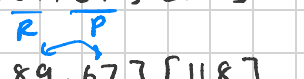
## Sorting Algorithms

### Merge Sort

- 1) [11, 1, 30, 2, 51, 6, 29, 7, 67, 15, 118, 4, 89, 23]
- 2) [11, 1, 30, 2, 51, 6, 29] [7, 67, 15, 118, 4, 89, 23]
- 3) [11, 1, 30, 2] [51, 6, 29] [7, 67, 15, 118] [4, 89, 23]
- 4) [11, 1] [30, 2] [51, 6] [29] [7, 67] [15, 118] [4, 89] [23]
- 5) [11] [1] [30] [2] [51] [6] [29] [7] [67] [15] [118] [4] [89] [23]
- 6) [1, 11] [30, 2] [51, 6] [29] [7, 67] [15, 118] [4, 89] [23]
- 7) [1, 2, 11, 30] [6, 29, 51] [7, 15, 67, 118] [4, 23, 89]
- 8) [1, 2, 6, 11, 29, 30, 51] [4, 7, 15, 23, 67, 89, 118]
- 9) [1, 2, 4, 6, 7, 11, 15, 23, 29, 30, 51, 67, 89, 118]

### Quick Sort

- 1) [11, 1, 30, 2, 51, 6, 29, 7, 67, 15, 118, 4, 89, 23]
- 2) [23, 1, 30, 2, 51, 6, 29, 7, 67, 15, 118, 4, 89, 11]
- 3) [4, 1, 30, 2, 51, 6, 29, 7, 67, 15, 118, 23, 89, 11]

- 4) [4, 1, 7, 2, 51, 6, 29, 30, 67, 15, 118, 23, 89, 11]  

- 5) [4, 1, 7, 2, 6, 51, 29, 30, 67, 15, 118, 23, 89, 11]  

- 6) [4, 1, 7, 2, 6, 11, 29, 30, 67, 15, 118, 23, 89, 51]  

- 7) [4, 1, 7, 2, 6] [11] [29, 30, 67, 15, 118, 23, 89, 51]  

- 8) [6, 1, 7, 2, 4] [11] [51, 30, 67, 15, 118, 23, 89, 29]  

- 9) [2, 1, 7, 6, 4] [11] [23, 30, 67, 15, 118, 51, 89, 29]  

- 10) [2, 1, 4, 6, 7] [11] [23, 15, 67, 30, 118, 51, 89, 29]  

- 11) [2, 1] [4] [6, 7] [11] [23, 15, 29, 30, 118, 51, 89, 67]  

- 12) [1, 2, 4, 6, 7, 11] [23, 15] [29] [30, 118, 51, 89, 67]  

- 13) [1, 2, 4, 6, 7, 11, 15, 23, 29] [67, 118, 51, 89, 30]  

- 14) [1, 2, 4, 6, 7, 11, 15, 23, 29] [30, 118, 51, 89, 67]  

- 15) [1, 2, 4, 6, 7, 11, 15, 23, 29, 30] [118, 51, 89, 67]  

- 16) [1, 2, 4, 6, 7, 11, 15, 23, 29] [67, 51, 89, 118]  

- 17) [1, 2, 4, 6, 7, 11, 15, 23, 29] [67, 51, 89] [118]  

- 18) [1, 2, 4, 6, 7, 11, 15, 23, 29] [89, 51, 67] [118]  

- 19) [1, 2, 4, 6, 7, 11, 15, 23, 29] [51, 89, 67] [118]  

- 20) [1, 2, 4, 6, 7, 11, 15, 23, 29] [51, 67, 89] [118]
- 21) [1, 2, 4, 6, 7, 11, 15, 23, 29, 51, 67, 89, 118]