

QUICK SORT

Quick Sort (A, BEG, END):

Description: Here **A** is an unsorted array. **BEG** is the lower bound and **END** is the upper bound.

1. If (BEG < END) Then
2. X = Partition (A, BEG, END)
3. Call Quick Sort (A, BEG, X - 1)
4. Call Quick Sort (A, X + 1, END)
- [End of If]
5. Exit

Partition (A, BEG, END)

Description: Here **A** is an unsorted array. **BEG** is the lower bound, **END** is the upper bound.

1. Set LOC = BEG
2. Repeat While (True)
3. Repeat While (A[LOC] <= A[END]) and (LOC != END)
4. END = END - 1
- [End of While Loop]
5. If (LOC == END) Then
6. Return LOC
- [End of If]
7. Interchange A[LOC] and A[END]
8. Set LOC = END
9. Repeat While (A[LOC] >= A[BEG]) and (LOC != BEG)
10. BEG = BEG + 1
- [End of While Loop]
11. If (LOC == BEG) Then
12. Return LOC
- [End of If]
13. Interchange A[LOC] and A[BEG]
14. Set LOC = BEG
- [End of While Loop]
15. Exit