

# Review QUIZ 1 of 1

## The Selection Problem & Algorithms

(All questions are based on Lecture Notes. Go to the Lecture Notes and fully understand the topics!)

**Q1.** Describe the **average-case linear time algorithm QuickSelect** for *Finding the  $k$ -Smallest Key*? Recurrence equation of the **average-case** time complexity of **QuickSelect**?

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**Q2.** What is the **worst-case** time complexity of **QuickSelect**? Recurrence equation?

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**Q3.** Describe the **worst-case linear time** algorithm **MMSelect** for *Finding the kth-Smallest Key*?

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**Q4.** Recurrence equation of the **worst-case** time complexity of **MMSelect**?  
Explain each term of the recurrence equation.

[GO TO Lecture Note Slide #46, #47, #48, #49, #50, #51]