

# 课程尚未开始 请大家耐心等待

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# 6. Follow Up Question

高级算法班IT求职面试培训 第6章

[www.ninechapter.com](http://www.ninechapter.com)

# 面试当中的follow up 问题

大家通常的问题

1. 如何结合已有的知识去解决follow up 问题？
2. 怎么样用相同的模板解决更困难的follow up题目？

# 目的

模板是死的

希望大家能够学到要怎么样去活用模板的思想

# Find Peak Element

<http://www.lintcode.com/en/problem/find-peak-element/>

# Find Peak Element II

<http://www.lintcode.com/en/problem/find-peak-element-ii/>

用一道题足以  
区分5类面试者

# 一道题可以区分5类面试者

- |   |           |
|---|-----------|
| 1. Find Peak Element 只会 $O(n)$          | 只会写for循环  |
| 2. Find Peak Element 会 $O(\log(n))$     | 会优化       |
| 3. Find Peak Element II 只会 $O(n^2)$     | 会优化不会举一反三 |
| 4. Find Peak Element II 会 $O(n\log(n))$ | 会优化会举一反三  |
| 5. Find Peak Element II 会证明是 $O(n)$     | 会举一反三四    |

帮助大家从1, 2, 3 晋升到4, 5 档。



# Partition 思想

Quick sort \*  
Quick select  
Nuts & Bolts Problem

<http://www.lintcode.com/en/problem/nuts-bolts-problem/>

# Median follow up

<http://www.lintcode.com/en/problem/median/>

<http://www.lintcode.com/en/problem/median-of-two-sorted-arrays/>

<http://www.lintcode.com/en/problem/data-stream-median/>

<http://www.lintcode.com/en/problem/sliding-window-median/>

# 第k大问题

1. <http://www.lintcode.com/en/problem/kth-largest-element/>
2. <http://www.lintcode.com/en/problem/kth-smallest-number-in-sorted-matrix/>
3. 两个数组他们乘积（和）的第k大
4. n个组的第k大数
5. n个数组多台机器第k大(k比较小)
6. n个数组多台机器第k大(k比较大)

# n个数组的第k大

Bad Candidate:

Cannot figure out

Medium Candidate:

Heap

Good Candidate:

n个数组的第k大

1: 单机? → Heap

2: 多机?

Strong Candidate:

k 的大小?

a: k比较小 ?

b: k比较大 ?

# 扫描线

<http://www.lintcode.com/en/problem/number-of-airplanes-in-the-sky/>

Follow up: <http://www.lintcode.com/en/problem/building-outline/>

# Subarray sum

## Subarray sum

<http://www.lintcode.com/en/problem/subarray-sum/>

## Submatrix Sum

<http://www.lintcode.com/en/problem/submatrix-sum/>

## Subarray Sum Closet

<http://www.lintcode.com/en/problem/subarray-sum-closest/>

## Subarray Sum II

<http://www.lintcode.com/en/problem/subarray-sum-ii/>