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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | 15 | 124 | 28 | 44 | 28 | 27 | 5 | 71 |

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| 15 | 13 | 124 | 28/ | 44 | 28 | 27 | 5 | 71 |

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| 15 | 124 | 13 | 28 | 44 | 28 | 27 | 5 | 71 |

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| 124 | 15 | 13 | 28 | 44 | 28 | 27 | 5 | 71 |

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| 124 | 15 | 28 | 13 | 44 | 28 | 27 | 5 | 71 |

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| 124 | 28 | 15 | 13 | 44 | 28 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 28 | 15 | 44 | 13 | 28 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 28 | 44 | 15 | 13 | 28 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 44 | 28 | 15 | 13 | 28 | 27 | 5 | 71 |

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| 124 | 44 | 28 | 15 | 28 | 13 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 44 | 28 | 28 | 15 | 13 | 27 | 5 | 71 |

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| 124 | 44 | 28 | 28 | 15 | 27 | 13 | 5 | 71 |

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| 124 | 44 | 28 | 28 | 27 | 15 | 13 | 5 | 71 |

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| 124 | 44 | 28 | 28 | 27 | 15 | 13 | 71 | 5 |

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| 124 | 44 | 28 | 28 | 27 | 15 | 71 | 13 | 5 |

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| 124 | 44 | 28 | 28 | 27 | 71 | 15 | 13 | 5 |

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| 124 | 44 | 28 | 28 | 71 | 27 | 15 | 13 | 5 |

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| 124 | 44 | 28 | 71 | 28 | 27 | 15 | 13 | 5 |

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| 124 | 44 | 71 | 28 | 28 | 27 | 15 | 13 | 5 |

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| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

其中蓝色表示有序序列；红色表示待考虑元素；紫色表示待交换两元素。

先从右边开始，再从左边。初始条件：pivot=A[low]

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13 | 15 | 124 | 28 | 44 | 28 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 71 | 15 | 124 | 28 | 44 | 28 | 27 | 5 | 71 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 71 | 15 | 124 | 28 | 44 | 28 | 27 | 5 | 5 |

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| 71 | 15 | 124 | 28 | 44 | 28 | 27 | 13 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 15 | 124 | 28 | 44 | 28 | 27 | 13 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 15 | 15 | 28 | 44 | 28 | 27 | 13 | 5 |

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| 124 | 71 | 15 | 28 | 44 | 28 | 27 | 13 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 27 | 28 | 44 | 28 | 27 | 13 | 5 |

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| 124 | 71 | 28 | 28 | 44 | 28 | 15 | 13 | 5 |

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| 124 | 71 | 28 | 28 | 44 | 27 | 15 | 13 | 5 |

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| 124 | 71 | 44 | 28 | 44 | 27 | 15 | 13 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

示意图：灰色表示该值赋给pivot,值可认为空；紫色表示此时该值为pivot；蓝色表示此时pivot在最终位置上。

Eg1:查找13

**0 1 2 3 4 5 6 7 8**

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| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

Eg2:查找124

**0 1 2 3 4 5 6 7 8**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 124 | 71 | 44 | 28 | 28 | 27 | 15 | 13 | 5 |

注：蓝色表示目前查找的有序序列；紫色表示目前的分界值；红色表示找到目标。

二分查找判定树查找过程(#表示查找失败)



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