

힉정렬

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힙정렬

heapSort(A[], n)

▷ A[1 ... n] 을 정렬한다

{

buildHeap(A, n); ▷ 힙 만들기 힙 (초기힙 구성, $O(n)$, 최소값이 A[1]에 위치)

for $i \leftarrow n$ **downto** 2 {

A[1] \leftrightarrow A[i]; ▷ 원소 교환 (최소값선택)

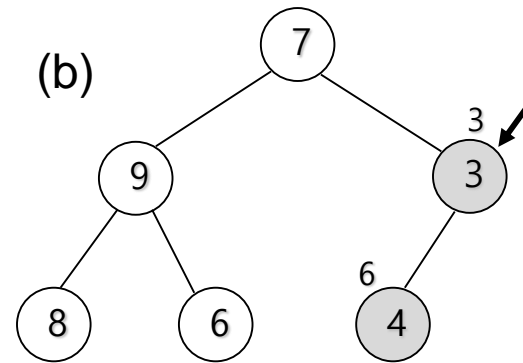
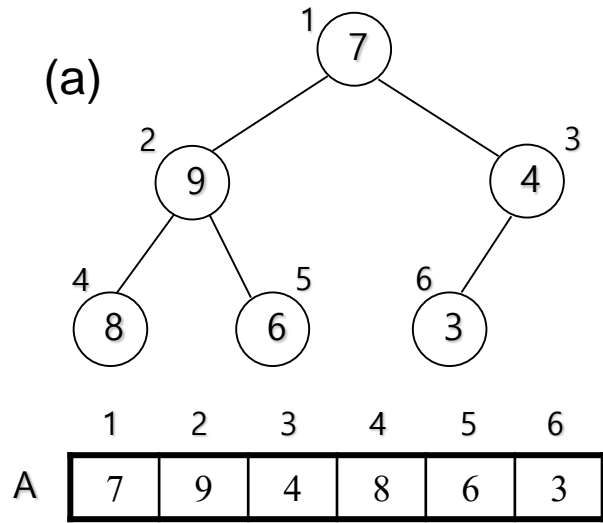
heapify(A, 1, $i-1$); ▷ $O(\log N)$

}

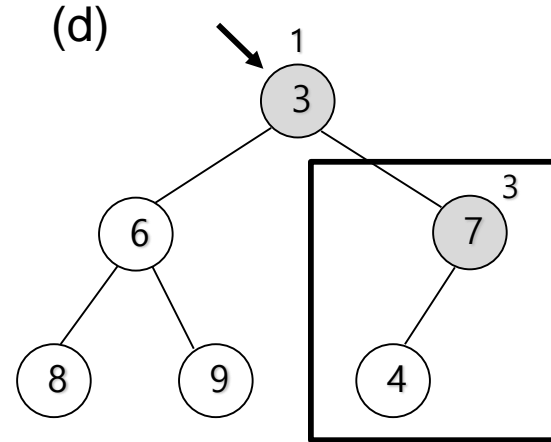
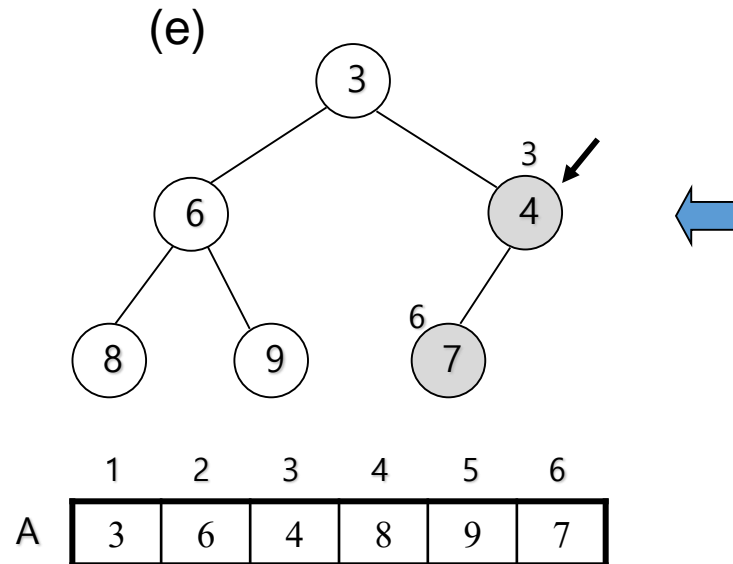
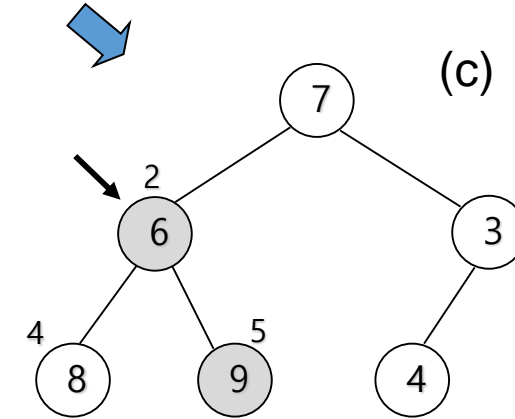
}

✓ 최악의 경우에도 $O(n \log n)$ 시간 소요!





힙 만들기
buildHeap



재귀호출
heapify



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 heapify(A, 1, $i-1$); ▷ $O(\log N)$

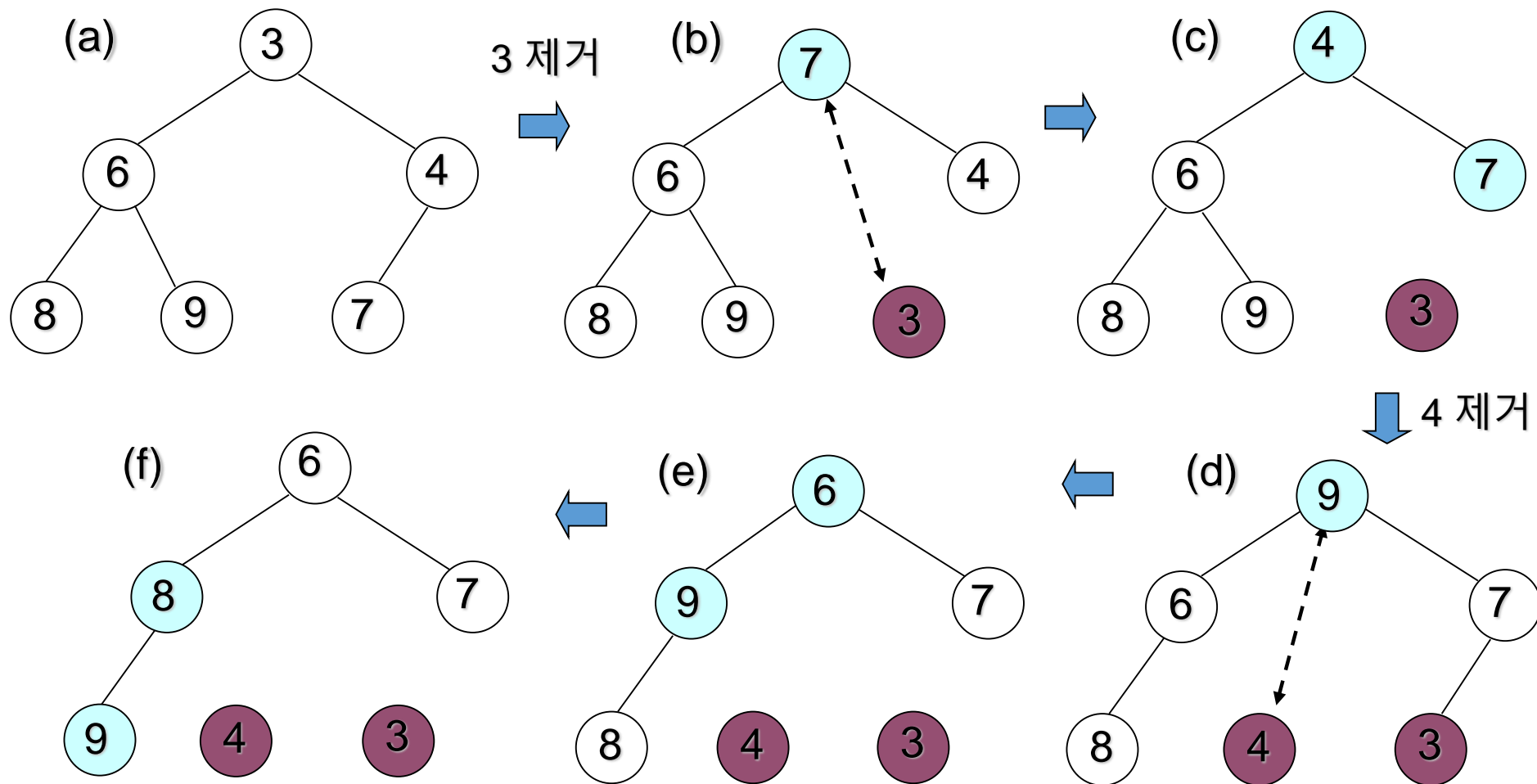
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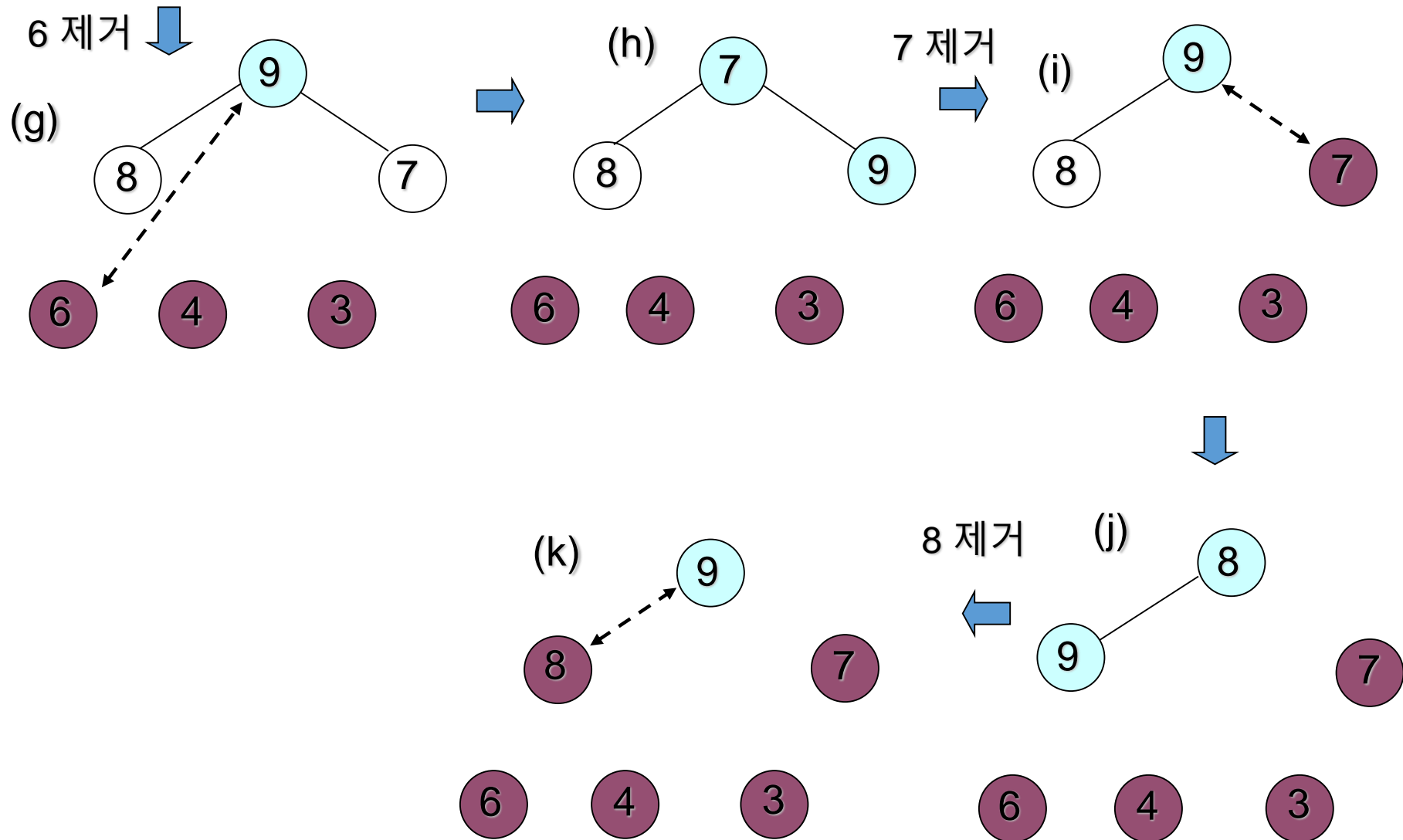
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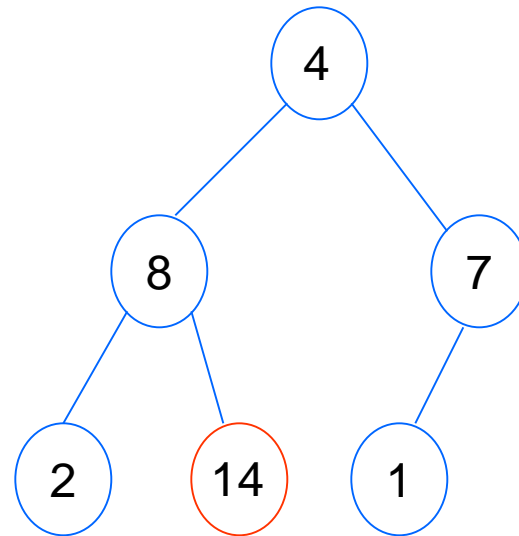
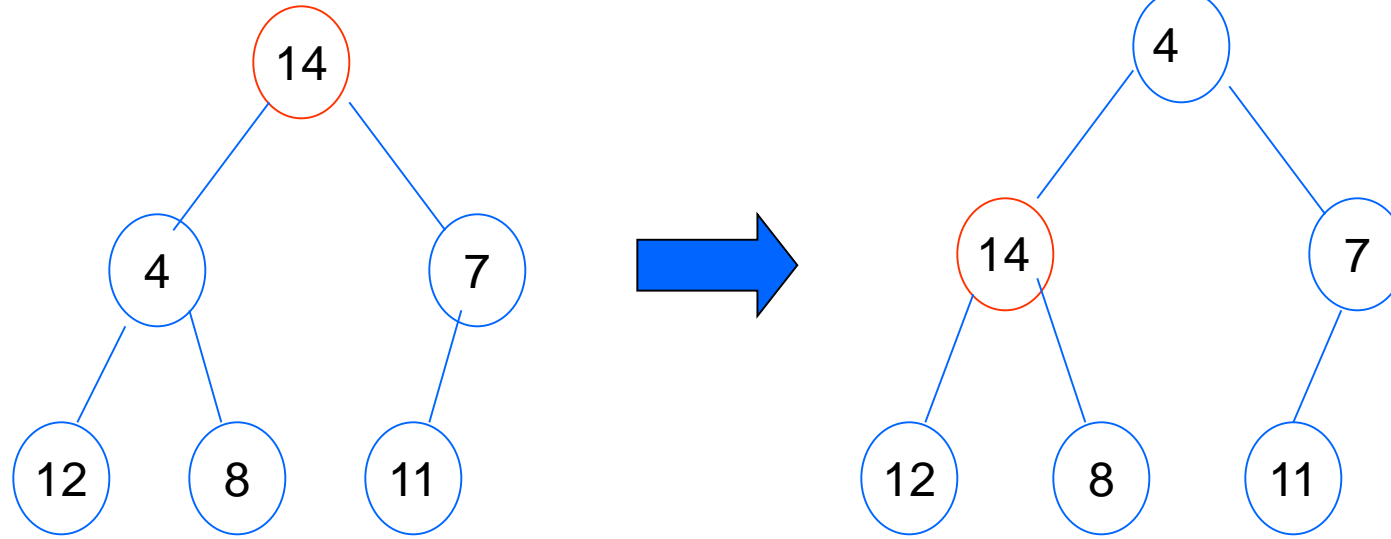
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정렬







$O(\log n)$ time

