

Kavan Lima

Computer Science I – Exercise Heaps

4/8/25

1) In an array-based implementation of a Heap, the left-child of the left-child of the node at index i , if it exists, can be found at what array location?

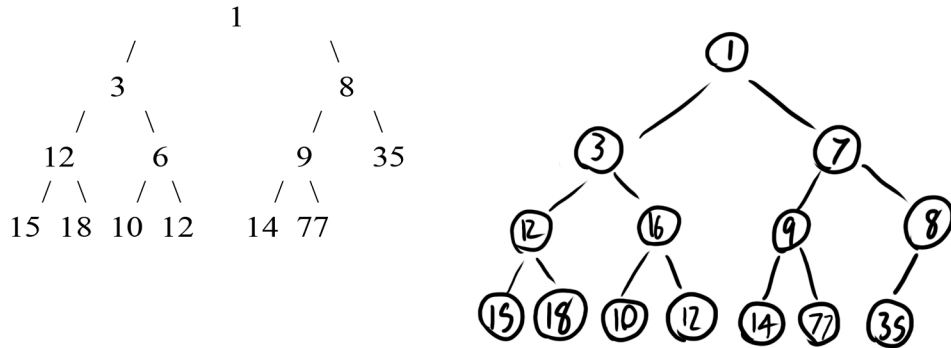
$$4i$$

2) In an array-based implementation of a Heap, the right-child of the right-child of the node at index i , if it exists, can be found at what array location?

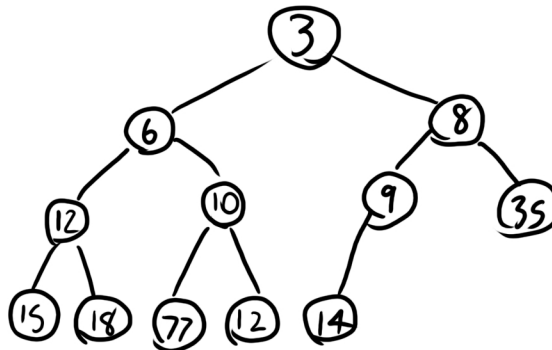
$$4i + 3$$

All the following questions are related to minheap

3) Show the result of inserting the item 7 into the heap shown below:



4) Show the result of removing the minimum element from the original heap in question #2 (without 7) from above.



5) Show the array representation of the original heap from question #3

3	6	8	12	10	9	35	15	18	77	12	14
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