

CSC263: Heaps

Question 1

Consider a max-heap with 7 distinct elements.

- Is it possible that the preorder traversal of this heap visits the elements in reverse-sorted order?
- Is it possible that the inorder traversal of this heap visits the elements in reverse-sorted order?
- Is it possible that the postorder traversal of this heap visits the elements in reverse-sorted order?

Question 2

We start with max-heap h consisting of unique elements. We insert an element v larger than any element in h , and then we insert another element larger than v . This yields a new max-heap j with two more elements than h . We then perform `ExtractMax` twice from j to arrive at heap k . Is heap k guaranteed to be the same heap as h ?