We normally publish the post-mortem for an assignment after it has been marked and released. Here is a list of common errors provided by the graders for assignment 7.

**General**

- Some students code did not run at all, hence they lost all correctness marks. You are advised to make sure your code runs.
- Helper functions should be defined **before** the functions that use them, and their definition should not interrupt the main function’s design recipe.

**Question 1**

- In this question, some students did not take advantage of the ordering property of a **BSTD** and did not perform a binary search and chose to recurse twice at all times, once on the left child of the **BSTD** and once on the right. Since the keys are in a certain order, you should take advantage of that fact and try to minimize the amount of recursion you’re doing by only recursing on one child whenever possible.
- Some students used binary searching in part (a) and not in part (b) and vice-versa but both parts should have been done using binary searching.

**Question 2**

- This question was very well done!

**Question 3a - Templates**

- In `rtree-template`, some students did not use a `cond` statement to determine if the given `RTree` is a `Sym`, an `XNode` or a `YNode`.
- In `rtree-template`, for the case that the `RTree` is a `Sym`, many students did not include `(...  rt  ...)` in the answer part of the conditional statement.
- In `rtree-template`, some students did not call `xnode-template` or `ynode-template` on the argument in the cases where the given `RTree` is an `XNode` or a `YNode` respectively.
- In `xnode-template`, many students forgot to call `rtree-template` on `xnode-left` and `xnode-right`.
- In `ynode-template`, many students forgot to call `rtree-template` on `ynode-below` and `ynode-above`. 
• In ynode-template, some students used ynode-left and ynode-right as selector functions instead of ynode-below and ynode-above. Whenever you’re dealing with two very similar data structures, please look over your work extra carefully to ensure you haven’t accidentally mixed them up.

Question 3

• In part (c), some students did not take advantage of the ordering property of an XNode and recursed on both xnode-left and xnode-right at all times.

• In part (c), some students flattened the tree into a list and found the highest xnode-val in the list. Almost all of the implementations of this approach failed to take advantage of the ordering property of the XNode.

• In part (d), a few students did not define helper functions to increment an RTree.

• In part (e), a few students did not use rt-lookup in winsys-lookup, resulting in lots of repeated code and an unnecessary layer of complexity.