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a. Adding an element just goes down the right most chain until it finds a spot. However rerank which checks the rank and realigns the tree is called in the function which goes through every node thus having complexity $O(n)$.

b. deleting the min element returns the item in the root and deletes the root. Then it concatenates the two branches. Then it calls rerank which goes through every node thus becoming $O(n)$ complexity.

c. concat also calls rerank giving it an $O(n)$ complexity.

2. It will always be $O(n)$ because all of these functions call rerank and rerank will always go through every node.