

RED BLACK TREE: https://en.wikipedia.org/wiki/Red%E2%80%93black_tree

- Delete a *key-value* pair

- Step 1: delete as a BST

- Search the *key*, recursively or iteratively
- If not found, then deletion failed and return `null`
- Otherwise (*node* found):
 1. If *node* has two non-NIL children, then the next larger node is the left-most node in *node.rChild*'s subtree, and this *larger* has at least a NIL child. Swap *node* with *larger*
 2. The *node* now has at least one NIL child: set *node* to NIL's sibling (this sibling may also be NIL)
 3. If *node* is not root (*parent* not `null`), then link *child* to *parent*; otherwise:
 - If *child* is NIL, then empty the tree
 - Otherwise, set *root* to *child*
 4. If *node*'s color was black:
 - If *child*'s color is red, simply set *child*'s color to black
 - Otherwise, fix *child*'s color by Step 2
 5. Return *node.value*

- Step 2: balance the tree – `fixDelColor(node)`

- Case 1, *node* is root: done (it's already black)
- Case 2, *sibling* of *node* is red:
 - Set *parent*'s color to red, and *sibling*'s color to black
 - Rotate left/right on *sibling* if *node* is a lChild/rChild
 - Update *sibling* to *node*'s new sibling
- Case 3, *parent*, *sibling*, *sibling.lChild* and *sibling.rChild* are all black: set *sibling*'s color to red, and fix *parent*'s color – invoke `fixDelColor(parent)`
- Case 4, *parent* is red, *sibling*, *sibling.lChild* and *sibling.rChild* are all black: simply set *sibling* to red and *parent* to black
- Case 5, *sibling*'s color is black: set *sibling* to red, and:
 - *node* is a lChild, *sibling.lChild* is red, and *sibling.rChild* is black: set *sibling.lChild* to black, and rotate right on *sibling.lChild*
 - *node* is a rChild, *sibling.lChild* is black, and *sibling.rChild* is red: set *sibling.rChild* to black, and rotate left on *sibling.rChild*
- Case 6: set *sibling*'s color to *parent*'s color, and then *parent*'s color to black
 - If *node* is a lChild, then set *sibling.rChild*'s color to black, and rotate left on *sibling*
 - If *node* is a rChild, then set *sibling.lChild*'s color to black, and rotate right on *sibling*

Important note: the Wikipedia RBT removal has errors in both description and source code, so please read with caution.

