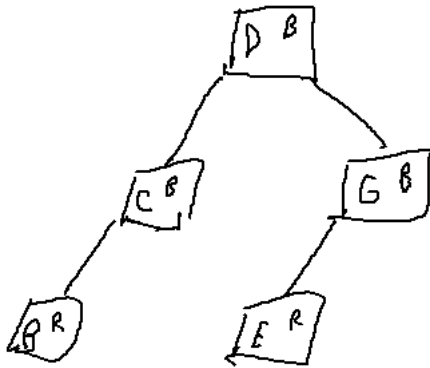


To the red-black tree below, add the nodes in the following order:

A

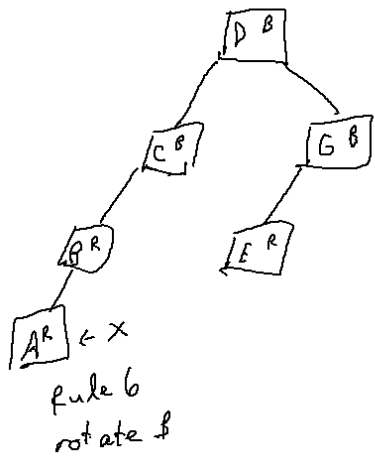
F



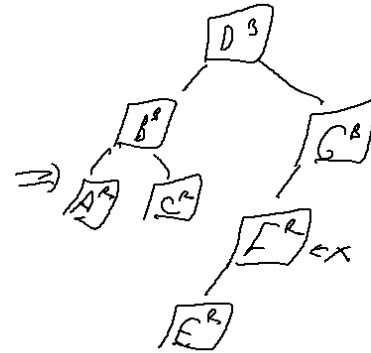
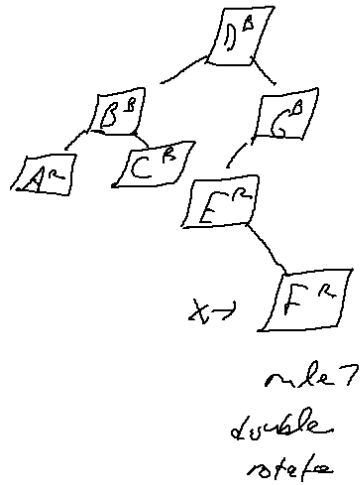
ADD

1. Let x be the new node.
2. Color x red.
3. If x is the root, (i.e. if x's parent is NULL), color x black, DONE!
4. If x's parent is black, DONE!
5. If x's uncle is red, color x's parent and uncle black, color x's grandparent red, reassign x to be x's grandparent. RESTART with new x.
6. If x is a direct grandchild, rotate x's parent up once, DONE!
7. Rotate x up twice, DONE!

Northern Michigan University (Marquette Co, MI)
 CS222-61-21W Data Structures (Andrew A. Poe)
 Quiz 10
 Friday 16 April 2021 10:00 A.M. EDT
 Time: 10 minutes



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