

When $t=2$ it's called a

↙ B-tree

2-3-4 tree

⏟

children is 2, 3, or 4

Red-Black tree is a conversion

of a 2-3-4 tree into a

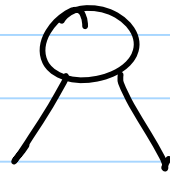
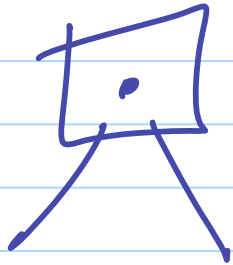
binary search tree

2-3-4 tree

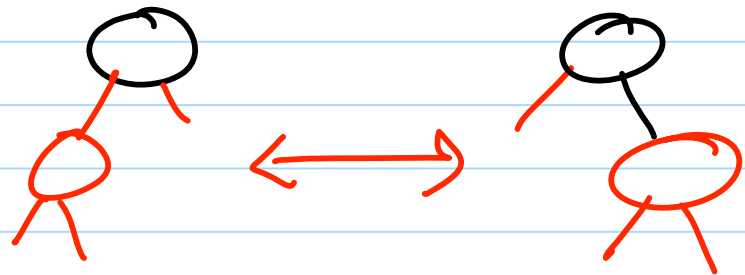
between $t + 2t$ children

full node

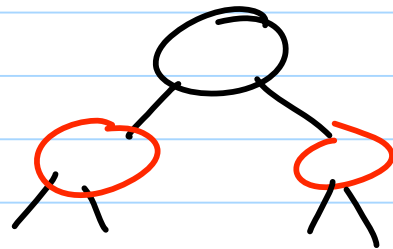
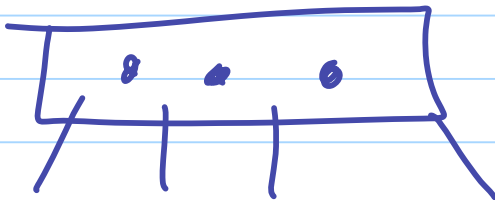
2



3

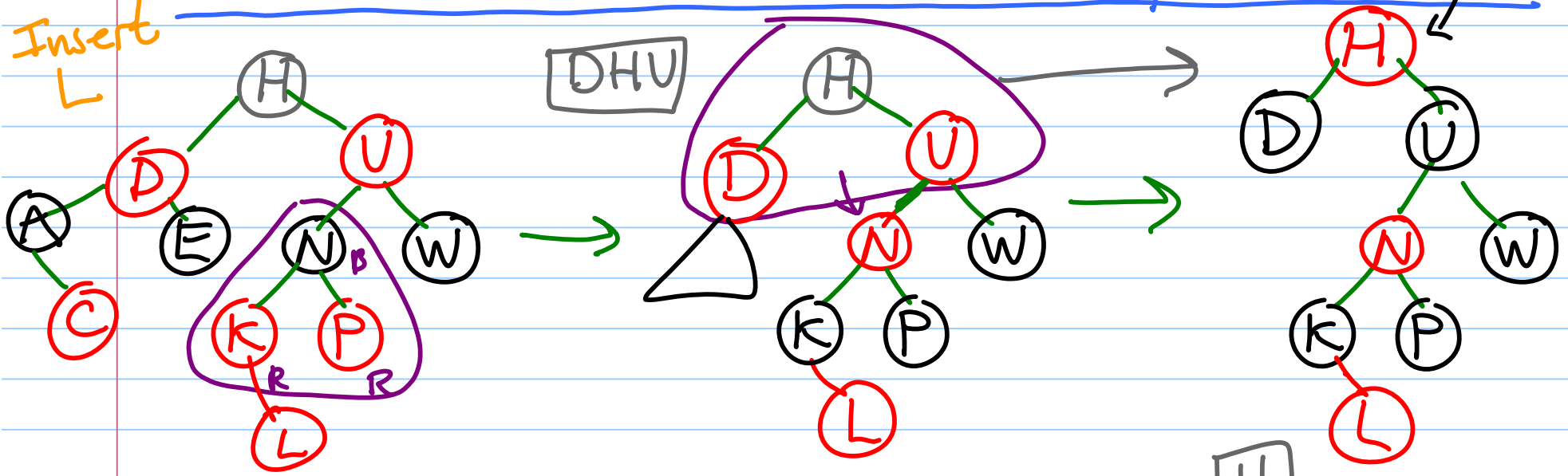


4



Relation between red-black tree insertion + 2-3-4 bottom-up insertion

Insert L



last step make H black

Red node is part of its parents

