

1. Consider a red-black tree with red-black height 3. What is the smallest and biggest number of keys (i.e. number of internal nodes) the tree can hold?

Draw all different red black trees that hold the keys of set $\{1, 2, 3, 4, 5\}$.

2. Show what happens when keys 41, 38, 31, 12, 18 and 8 are added to an initially empty red black tree. Draw tree after each insertion!