Red Black Tree

```
insertion (T, N)
{
    bst insertion (T, N)    // insert node
    while N -> Parent.color == Red
        if N -> Parent == N -> Parent -> Parent -> right
            u = N -> Parent -> Parent -> left
            if u.color == Red
                u.color = Black
                N -> parent.color = Black
                N -> parent -> parent.color = Red
                N = N -> parent -> parent
            else if N == N -> parent -> left
                N = N -> parent
                leftrotate (T, K)
                N -> parent.color = Black
                N -> parent -> parent.color = Red
                Right-rotate (T, N -> parent -> parent)
            else
                insertion (N, T->left)
    T->root.color = Black.
```