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To insert a new node —

① performing BST insertion but coloring the newly inserted. nodes as RED.

② If x is root, change colour of x as black.

③ Do following if color of x's parent is not black or x is not root —

① If x's uncle is RED (Grand parent must have been black)
① change color of parent and uncle as Black.
② color of grand parent as RED.
③ change x = x's grandparent, repeating steps ② & ③ for new x.

② If x's uncle is black, then there can be four configurations for x, x's parent (p) and x's grandparent (g)

1. Determine configuration.
   1) Left Left case. (p is left of g and x is left child of p)
   2) Left Right case (p is left child of g and x is right child of p)
   3) Right Right case. (Mirror of case a)
   4) Right Left case (Mirror of case c)

2. change x = x's parent, repeat steps 2 & 3 for new x