**Splay Insertion Algorithm**

Splay insertion is like root insertion, except rotation occur with respect to the grandparent rather than the parent.

If the orientation of the two links between grandparent and grandchild have the same orientation\*:

1. Rotate the parent and grandparent.
2. Rotate the grandchild with parent.

If the orientation of the two links between grandparent and grandchild have different orientations:

1. Rotate the grandchild and the parent
2. Rotate the grandchild and the grandparent.

If there will not be 3 nodes from the root after the insertion, perform a regular insert at root.

\*Descriptions of nodes as grandparent, parent, and grandchild are relative to the original tree configuration.