

## R-7.12

The number of nodes in a binary tree is done by a function known as level numbering. The nodes are numbered level by level (top to bottom), left to right. Since a heap is a complete binary tree, insertions will always be done on the bottom-most level to the right of the current rightmost leaf node. Thus, the insertion will always be done at position  $n + 1$ , the position to the right of the last node, the node in position  $n$ .