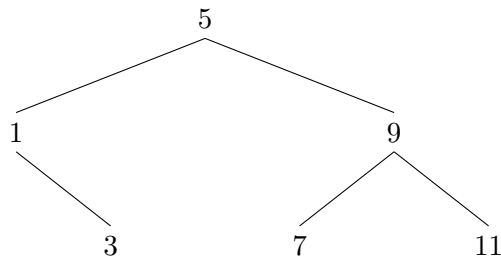


## SICP Exercise 2.64

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a. If the parameter  $n$  equals 0, then the constructed tree will be empty, and the remaining elements will be all the original elements. Otherwise, the **partial-tree** procedure recursively converts the first  $\lfloor \frac{n-1}{2} \rfloor$  elements to the left subtree and the last  $n - (\lfloor \frac{n-1}{2} \rfloor + 1)$  elements to the right subtree, and the middle entry is the entry of the constructed tree. Then, **partial-tree** calls the constructor **make-tree** to make a tree with the entry, the left subtree and the right subtree. The tree produced by **list->tree** for the list (1 3 5 7 9 11) is given as follows:



b. The number of steps required by **list->tree** grows as  $\Theta(n)$ , where  $n$  is the size of the given list.