

1. This is used to demarcate the boundaries of a linked list so that all elements will be inserted within the chain of those nodes.
2.
 - a. false, binary search trees are sorted
 - b. true
 - c. true
 - d. false, a node could be a leaf (has no children)
 - e. false, a node can only have one direct parent. This is what makes it binary
 - f. false, the root doesn't have a parent
 - g. true
 - h. true
 - i. false, preorder places the root first but maintains the order of the left and right subtree
3.
 - a. n ; 100
 - b. $\log_2 n + 1$; 6 min
 - c. n ; 99, 0 is counted as one of the levels
 - d. 2^n ;
 - e. $2^n - 1$;
 - f. 6
 - g. 3
- 4.

