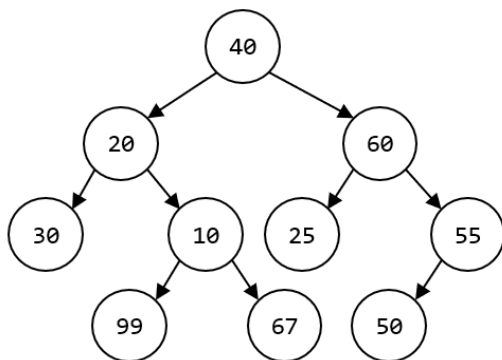
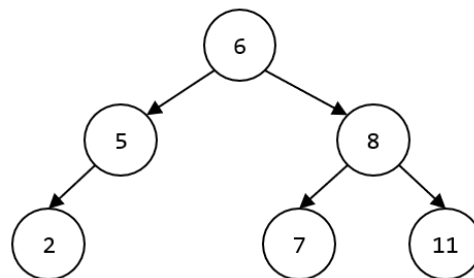


Quizlet 7



For the tree above, select if it is a Binary Tree, Binary Search Tree, or Neither.

- ☐ Binary Tree
- ☐ Binary Search Tree
- ☐ Neither



For the tree above, if we run **linear** search, what is the worst case runtime?

For the tree above, if we run **binary** search, what is the worst case runtime?

Select **ALL** statements that correctly describe 'work' and 'span' in parallel algorithms.

- ☐ Work is the total number of actions across all cores
- ☐ Span equals the total work divided by the number of cores
- ☐ Span is the length of the longest sequential chain of actions
- ☐ Work and span are always equal

If $P = NP$, which of the following would immediately become true? Select **ALL** that apply.

- ☐ Every NP problem has an exponential-time solution ($O(k^n)$)
- ☐ Every NP problem has a polynomial-time solution ($O(n^k)$)
- ☐ No heuristic would ever be needed
- ☐ All problems become $O(1)$

Which of the following are true about hashing? Select **ALL** that apply.

- ☐ Searching a dictionary for a key is $O(1)$
- ☐ Lists use hashed search
- ☐ Hash functions map values to integers
- ☐ Mutable values should not be used as keys