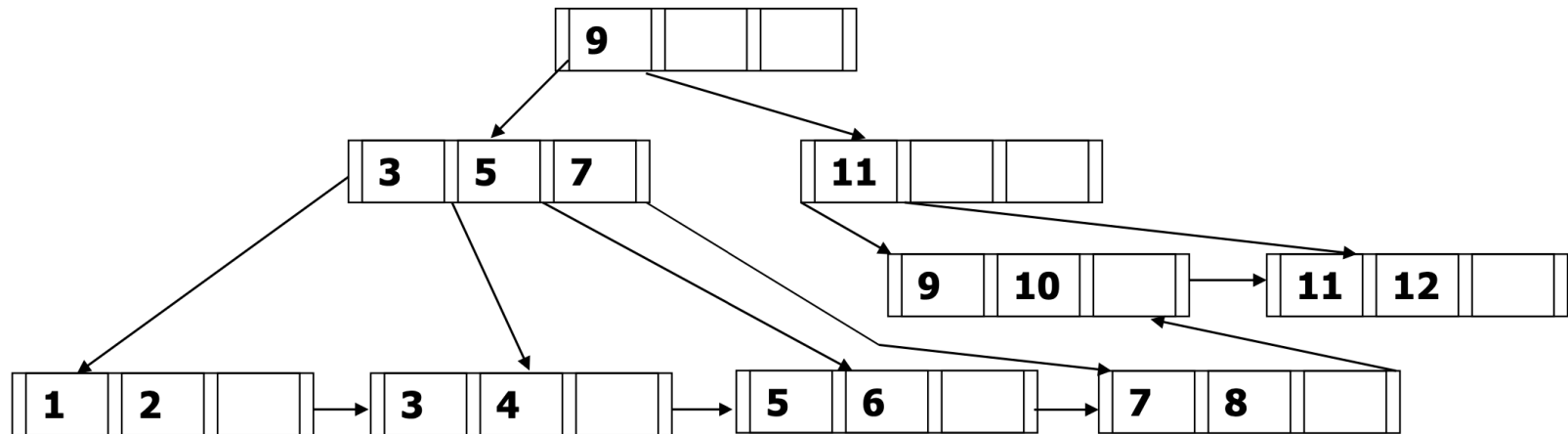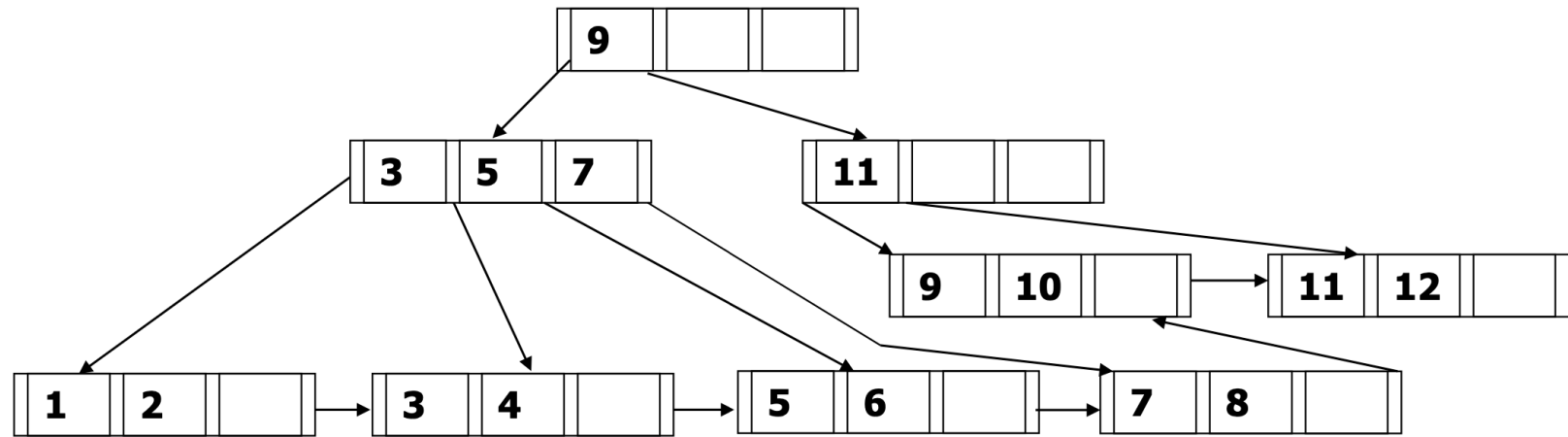# Show the tree after deletions
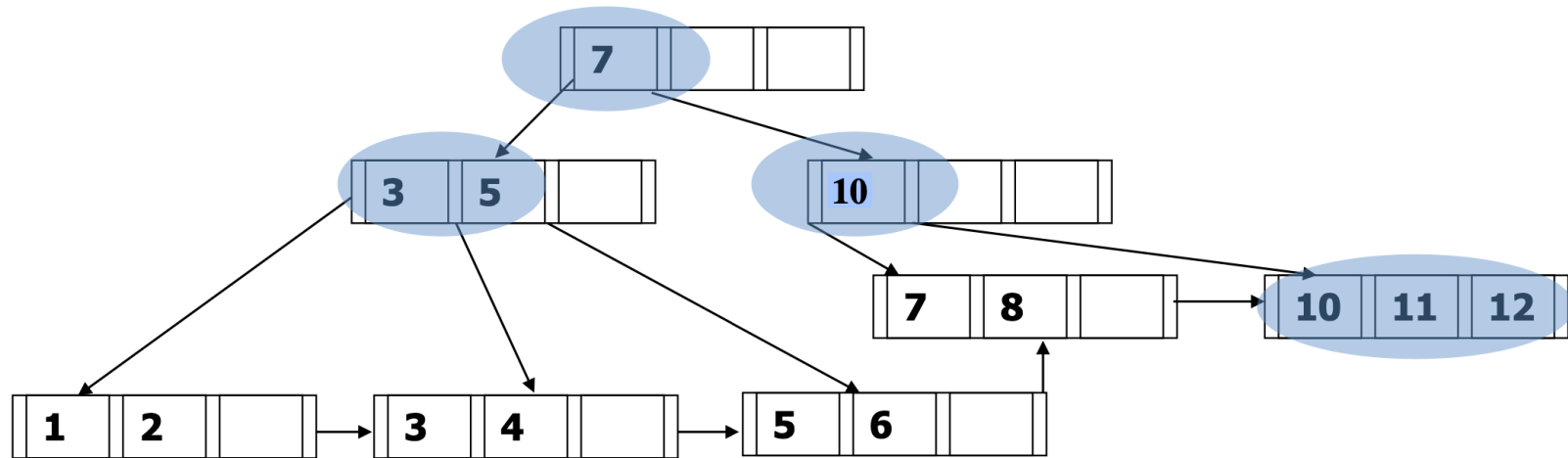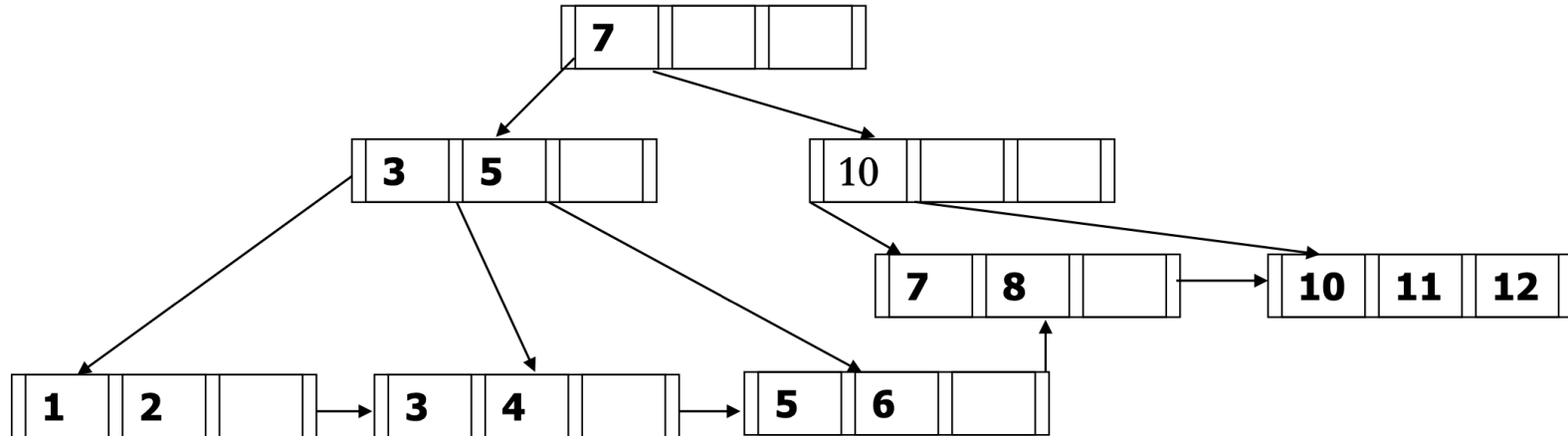

- Remove 9, 7, 8

B+ tree Index Deletion

- Step1: Descend to the leaf node where the key fits

- Step 2: Remove the required key and associated reference from the node.

  - ❑ (Case 1): If the node still has half-full keys, repair the keys in parent node to reflect the change in child node if necessary and stop.

  - ❑ (Case 2): If the node is less than half-full, but left or right sibling node is more than half-full, redistribute the keys between this node and its sibling. Repair the keys in the level above to represent that these nodes now have a different "split point" between them.

  - ❑ (Case 3): If the node is less than half-full, and left and right sibling node are just half-full, merge the node with its sibling. Repeat step 2 to delete the unnecessary key in its parent.
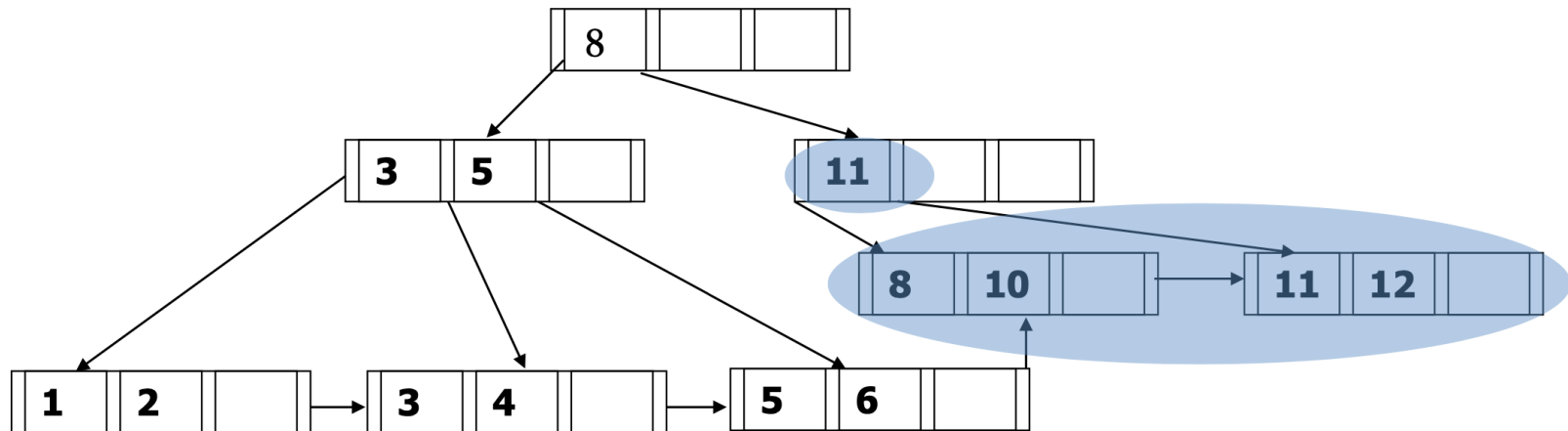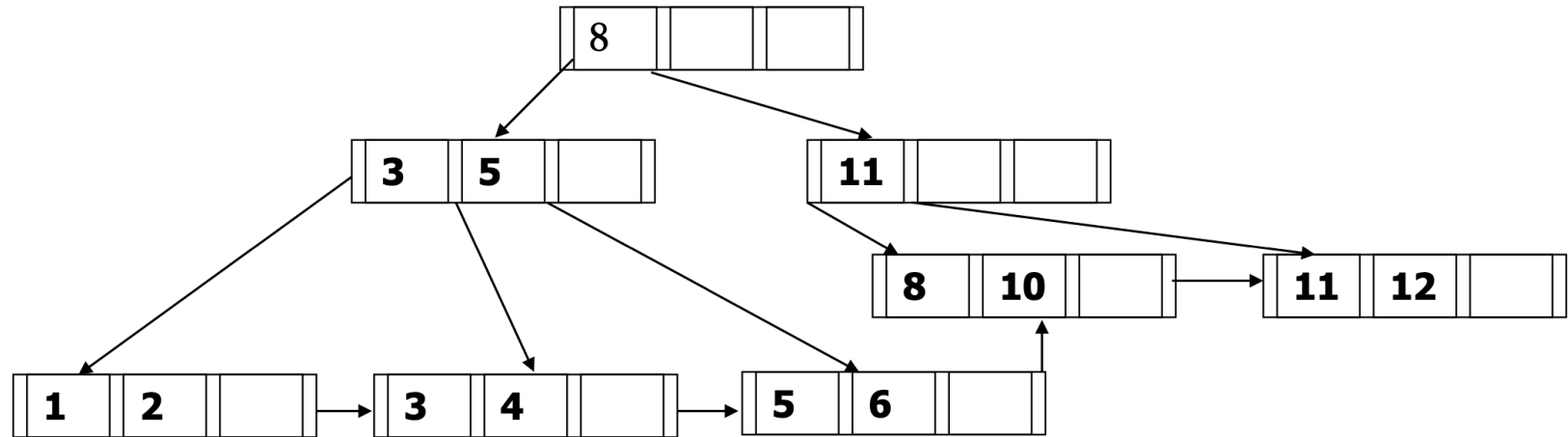
- After removing 9

Remove 9, 7, 8

- After removing 7

Remove 9, 7, 8

- After removing 8