

```

71  boolean remove(T x) {
72      int bottomLevel = 0;
73      Node<T>[] preds = (Node<T>[]) new Node[MAX_LEVEL + 1];
74      Node<T>[] succs = (Node<T>[]) new Node[MAX_LEVEL + 1];
75      Node<T> succ;
76      while (true) {
77          boolean found = find(x, preds, succs);
78          if (!found) {
79              return false;
80          } else {
81              Node<T> nodeToRemove = succs[bottomLevel];
82              for (int level = nodeToRemove.topLevel;
83                  level >= bottomLevel+1; level--) {
84                  boolean[] marked = {false};
85                  succ = nodeToRemove.next[level].get(marked);
86                  while (!marked[0]) {
87                      nodeToRemove.next[level].compareAndSet(succ, succ, false, true);
88                      succ = nodeToRemove.next[level].get(marked);
89                  }
90              }
91              boolean[] marked = {false};
92              succ = nodeToRemove.next[bottomLevel].get(marked);
93              while (true) {
94                  boolean iMarkedIt =
95                      nodeToRemove.next[bottomLevel].compareAndSet(succ, succ,
96                                                                      false, true);
97                  succ = succs[bottomLevel].next[bottomLevel].get(marked);
98                  if (iMarkedIt) {
99                      find(x, preds, succs);
100                     return true;
101                 }
102                 else if (marked[0]) return false;
103             }
104         }
105     }
106 }

```

FIGURE 14.12 The LockFreeSkipList class: the remove() method.