Pseudocode: delete

```
1:  function DELETE(BST T, KEY k)
2:      v = SEARCH(T, k)
3:      if v ≠ NIL then
4:          if v.left == NIL or v.right == NIL then                ▷ Case 1 or 2
5:              DELETENODE(T, v)
6:          else                                                   ▷ Case 3
7:              u = PREDECESSOR(v)
8:              v.key = u.key
9:              v.data = u.data
10:             DELETENODE(T, u)
11:
12: function DELETENODE(BST T, NODE v)        ▷ At most one children of v is not NIL
13:     p = v.parent
14:     if p ≠ NIL then                                            ▷ v is not the root node
15:         if p.left == v then
16:             if v.right ≠ NIL then p.left = v.right else p.left = v.left
17:             if p.left ≠ NIL then p.left.parent = p
18:         else
19:             if v.right ≠ NIL then p.right = v.right else p.right = v.left
20:             if p.right ≠ NIL then p.right.parent = p
21:     else                                                       ▷ v is the root node
22:         if v.right ≠ NIL then T.root = v.right else T.root = v.left
23:         if T.root ≠ NIL then T.root.parent =NIL
```