LIST-SEARCH$'(L, k)$

1 $L.nil.key = k$ **//** store the key in the sentinel to guarantee it is in list
2 $x = L.nil.next$ **//** start at the head of the list
3 **while** $x.key \neq k$
4      $x = x.next$
5 **if** $x == L.nil$ **//** found k in the sentinel
6   **return** NIL **//** k was not really in the list
7 **else return** x **//** found k in element x