

COMPACT-LIST-SEARCH' ( $key, next, head, n, k, t$ )

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1   $i = head$ 
2  for  $q = 1$  to  $t$ 
3       $j = \text{RANDOM}(1, n)$ 
4      if  $key[i] < key[j]$  and  $key[j] \leq k$ 
5           $i = j$ 
6          if  $key[i] == k$ 
7              return  $i$ 
8  while  $i \neq \text{NIL}$  and  $key[i] < k$ 
9       $i = next[i]$ 
10 if  $i == \text{NIL}$  or  $key[i] > k$ 
11     return  $\text{NIL}$ 
12 else return  $i$ 
```