

```
int lookup(ITEM  $k$ )
┌   TREE  $t \leftarrow \text{lookupNode}(tree, k)$ 
┌   if  $t \neq \text{nil}$  then
┌   |   return  $t.value$ 
┌   else
┌   |   return nil
└
```

// RICERCA DI UN NODO, iterativa

```
TREE lookupNode(TREE  $T$ , ITEM  $k$ )
┌   TREE  $u \leftarrow T$  // parto dalla radice
┌   while  $u \neq \text{nil}$  and  $u.key \neq k$  do
┌   |    $u \leftarrow \text{iif}(k < u.key, u.left, u.right)$ 
└
```

// RICERCA DI UN NODO, ricorsiva

```
TREE lookupNode(TREE  $T$ , ITEM  $k$ )
┌   if  $T == \text{nil}$  or  $T.key == k$  then
┌   |   return  $T$ 
┌   else
┌   |   return lookupNode(iif( $k < u.key, u.left, u.right$ ),  $k$ )
└
```