

13.2-1.

Write pseudocode for RIGHT-ROTATE.

Answer.

```
LEFT-ROTATE( $T, y$ )
1   $x = y.\text{left}$                 // set  $y$ 
2   $y.\text{left} = x.\text{right}$           // turn  $x$ 's right subtree into  $y$ 's left subtree
3  if  $x.\text{right}.p \neq T.\text{nil}$ 
4       $x.\text{right}.p = y$ 
5   $x.p = y.p$                     // link  $y$ 's parent to  $x$ 
6  if  $y.p = T.\text{nil}$ 
7       $T.\text{root} = x$ 
8  elseif  $y = y.p.\text{left}$ 
9       $y.p.\text{left} = x$ 
10 else  $y.p.\text{right} = x$ 
11  $x.\text{right} = y$                 // put  $y$  on  $x$ 's right
12  $y.p = x$ 
```