算法 1 数据结构的朴素实现

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1: procedure INITIALIZE-TREE-SIMPLE
2:     for each node u bottom-up do
3:         assume u = f_u(v_1, ..., v_k)                ▷ 此处用结点名称指代其值
4:         let u.processor be a new data structure of operator f
5:         u.processor.INITIALIZE
6:         for each v_i do
7:             u.processor.MODIFY(i, W(v_i))
8:         end for
9:         W(u) ← u.processor.QUERY
10:    end for
11: end procedure
12:
13: procedure MODIFY-TREE-SIMPLE(u, b)
14:    W(u) ← b
15:    if u = root then exit
16:    p ← u.parent
17:    assume p = f_p(v_1, ..., v_k) and v_i = u
18:    p.processor.MODIFY(i, b)
19:    MODIFY-TREE-SIMPLE(p, p.processor.QUERY)
20: end procedure
21:
22: function QUERY-TREE-SIMPLE
23:    return W(root)
24: end function
```