

```
1 class Bakery implements Lock {
2     boolean[] flag;
3     Label[] label;
4     public Bakery (int n) {
5         flag = new boolean[n];
6         label = new Label[n];
7         for (int i = 0; i < n; i++) {
8             flag[i] = false; label[i] = 0;
9         }
10    }
11    public void lock() {
12        int i = ThreadID.get();
13        flag[i] = true;
14        label[i] = max(label[0], ..., label[n-1]) + 1;
15        while (( $\exists k \neq i$ ) (flag[k] && (label[k], k) << (label[i], i))) {};
16    }
17    public void unlock() {
18        flag[ThreadID.get()] = false;
19    }
20 }
```

FIGURE 2.10 Pseudocode for the Bakery lock algorithm.