

```
1  public class SynchronousQueue<T> {
2      T item = null;
3      boolean enqueueing;
4      Lock lock;
5      Condition condition;
6      ...
7      public void enq(T value) {
8          lock.lock();
9          try {
10              while (enqueueing)
11                  condition.await();
12              enqueueing = true;
13              item = value;
14              condition.signalAll();
15              while (item != null)
16                  condition.await();
17              enqueueing = false;
18              condition.signalAll();
19          } finally {
20              lock.unlock();
21          }
22      }
23      public T deq() {
24          lock.lock();
25          try {
26              while (item == null)
27                  condition.await();
28              T t = item;
29              item = null;
30              condition.signalAll();
31              return t;
32          } finally {
33              lock.unlock();
34          }
35      }
36  }
```

FIGURE 10.18 The SynchronousQueue<T> class.