Chapter 14: Building Custom Synchronizers

Exercise 1

Implement a `ThreadGate` (see page 305) using `AbstractQueueSynchronizer` and without using `synchronized` or explicit locks. *Optional:* Do it using only the state in the `AbstractQueueSynchronizer`.

Exercise 2

Implement a `BoundedBuffer` which, in addition to `get()` and `put()`, has the method `getBatch()` which fetches 5 objects. As few theads as possible should be notified about changes to the buffer. Specifically, threads blocking in `getBatch()` must not be notified when there are less than 5 elements in the buffer. *Note:* `put()` is allowed to notify two threads.