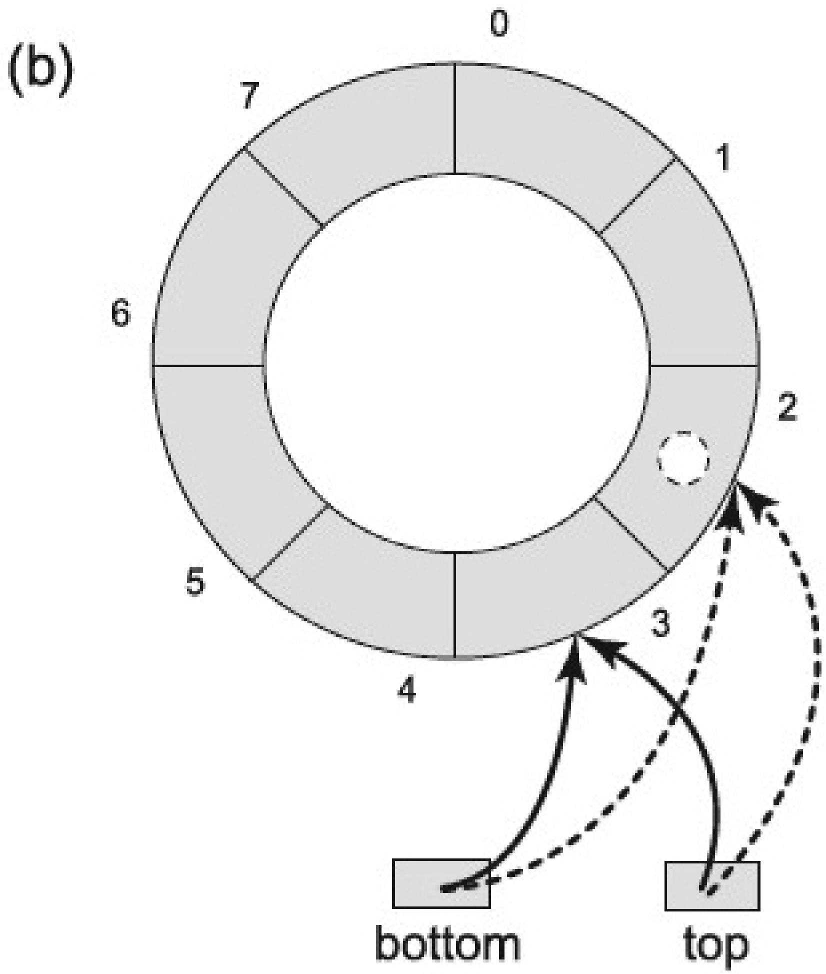

**FIGURE 16.16B** The UnboundedDEQue class implementation. In part (a), popTop() and popBottom() are executed concurrently while there is more than one task in the UnboundedDEQue object. In part (b), there is only a single task, and initially bottom refers to entry 3 and top to 2. The popBottom() method first decrements bottom from 3 to 2 (we denote this change by a dashed line pointing to entry 2 since it will change again soon). Then, when popBottom() detects that the gap between the newly set bottom and top is 0, it attempts to increment top by 1 (rather than reset it to 0 as in the BoundedDEQue). The popTop() method attempts to do the same. The top field is incremented by one of them, and the winner takes the last task. Finally, the popBottom() method sets bottom back to entry 3, which is equal to top.