```
semaphore items = 0;
semaphore spaces = BUFFER SIZE;
void producer() {
                           void consumer() {
  while (true) {
                               while (true) {
    item = produceItem();
                                 down(items);
    down(spaces);
                                 item = rmFromBuffer();
    putIntoBuffer(item):
                                 up(spaces):
    up(items);
                                 consumeItem(item);
```