Java Wait-Notify

* must hold lock for whatever we invoke wait() or notifyAll() on.
* use notifyAll() to do notifications (using notify() is a no-no and almost always wrong).
* as odd as it sounds, we can come back from wait() at any time, even without being notified.
* the while-wait() structure is best (if-wait() is almost always wrong).
* if using a long msTimeout, return false to indicate a timeout occurred, true to indicate that the condition has been met.
* treat an msTimeout of zero, as "never timeout".
* for non-zero timeouts, calculate the msRemaining each time through the loop.
* when returning from wait(long), don't worry about how much time has passed at first. Check the condition and return "success" regardless of how much time has passed. Then, if the condition has not been met, see if we have timed out.