**Final Exam**

# M312 Final Exam, Question 2

Back to the Question

For a 3-member replica set, *{ w : "majority" }* implies that two copies of any write must occur in order for that write to be acknowledged. This means the replica set must be able to (1) elect a Primary, and (2) have one secondary that is current.

The following is correct:

- For a replica set with three standard data-bearing, non-delayed members, the application can receive acknowledgment for writes if any one server is lost
    - This is true. *{ w : "majority" }* requires that you be able to write to *two* servers in order to receive acknowledgment, and for this setup, you can lose any one server, be able to elect a Primary if necessary, using two servers, and have both a Primary and a Secondary that can take writes.

The following choices are incorrect:

- For a replica set with two data bearing members and one Arbiter (no delayed Secondaries), the application can receive acknowledgment for writes if any one server is lost
    - Suppose that you lose a data bearing server. The remaining server, plus the Arbiter, will have two votes, enough to be able to elect a Primary, if necessary, but there will not be a Secondary to replicate any writes, so no writes wil be acknowledged until the server comes back up.
- For a replica set with two standard data bearing members plus one delayed Secondary, the application can receive acknowledgment for writes if any one server is lost
    - Suppose that a non-delayed member of the replica set goes down. The other non-delayed member will be elected Primary (if it isn't already), but any acknowledgment will have to wait for the server that is down to come back up, or for the delay time to pass. Since the delay is 24 hours, and the `wtimeout` is 60 seconds, an error will be returned.

Proceed to next section