Assignment 5: 20 points   Date: October 5, 2018
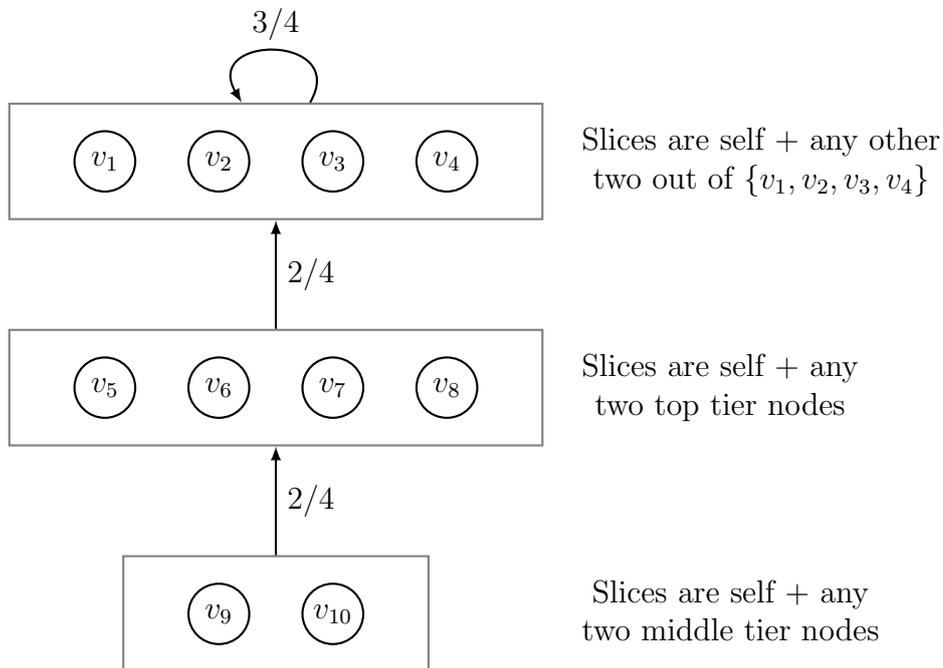
1. [5 points] Show that the below FBAS enjoys quorum intersection.

2. [5 points] In an FBAS, show that the union of two quorums is a quorum.

3. [5 points] Let U be a quorum in an FBAS $\langle \mathbf{V}, \mathbf{Q} \rangle$ and $U' = U \setminus B$ where $B \subseteq \mathbf{V}$. If $U' \neq \emptyset$, show that U' is a quorum in $\langle \mathbf{V}, \mathbf{Q} \rangle^B$.

4. [5 points] If B_1 and B_2 are DSets in an FBAS $\langle \mathbf{V}, \mathbf{Q} \rangle$ enjoying quorum intersection, then show that $B_1 \cap B_2$ is also a DSet.