

- 1 | **First, show all eigenvalues are complete and at most 1**
- 2 | **then, it must converge because the  $\lambda = 1$  eigenvalues send their inputs to the same thing each time, and the other ones are less than one so they end up going to zero**
- 3 | **convergence speed: larger non-1 eigenvalues will cause the chain to converge more slowly**