Math 191, Networks, UCLA, Spring 2018
Quiz 2

Let's try this again. (I want you to get comfortable applying ideas from linear algebra to network analysis.)

1. Consider an unweighted, undirected, simple network.

   a. Show that the smallest eigenvalue of the combinatorial graph Laplacian $\mathbf{L} = \mathbf{D} - \mathbf{A}$ is 0.

   b. Show that the number of components in the network is equal to the number of 0 eigenvalues of $\mathbf{L}$.