Networks and Markets

Hw1 submission  
Part 3

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(b) The average seems to be around 3.7. It's not that surprising based on the Milgram expriment, and that the probability that the distance between every two nodes is greater than 2 converges to zero when grows to infinity in a random graph.  
(c) It should be close to based on the observations from question 9(b).  
(d) We think the average shortest path length of the Facebook data should be greater than the average shortest path of a random graph with the same number of nodes because people are more likely to form large cliques and every two such clique tend to have a connecting edge or a mutual node, but that's just a speculation  
The measurements seem to validate the expected.

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