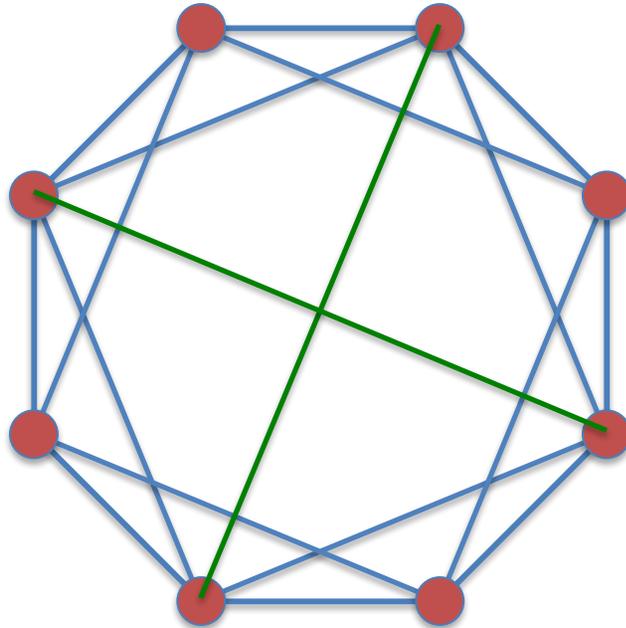


Homework

Chapter 14 Navigating a Small World

1. (20 points) Consider the network of 8 nodes shown below. What is the average shortest distance for the regular graph (i.e., using only the 28 blue links), with 4 links/node? What is the average shortest distance for the full Watts-Strogatz graph (i.e., using both the 28 blue and the 2 green links)?



2. (15 points) Consider the network shown below. What is the clustering coefficient for this regular graph (i.e., using only the 5 blue links), with 2 links/node? What is the clustering coefficient for the full Watts-Strogatz graph (i.e., using both the 5 blue and the 1 green link)?

