1. Draw an example of a network.

2. What did the network that spread the gossip the fastest look like? Draw it!

3. Suppose you don’t want the gossip to spread quickly. What sort of network would slow down the spread of gossip the most? Draw it!
4. Label each node in the network below with its degree.

5. Label each node in the network below with its betweenness.
6. What is the fastest route from Davis to Sacramento?

7. If everyone is selfish and there are 40 cars, how long will each car’s commute take in the network below? What if there are 60 cars? What if there are 65 cars?

\[ c(x) = 1 \]

\[ c(x) = x \]

8. Suppose there are 60 cars on the initial network and \( y \) of them take the road from \( s \) to \( v \) to \( t \). What is the average travel time for each car?

(a) Initial network

(b) Augmented network