Introduction to Cytoscape

1. Direct your Google Chrome browser to http://baliga.systemsbiology.net/cytoscape/cellphone/help.php
2. Click the link to run the cell phone simulation at the end of the first paragraph.
3. If prompted, press the "Keep" button, and then click the cy.jnlp button to launch the simulation.

4. Click on 1C.
   Click on "Simulation" at the top.
   Click on "Phone Tree"
   Click on "Start"
   Everyone who turns Red heard the rumor.
   Who did not hear the rumor?

5. Click on "Simulation" at the top.
   Click on "Reset graph"

6. Click on 4D.
   Click on "Simulation" at the top.
   Click on "Knock out Selected".
   Click on 1C.
   Click on "Simulation" at the top.
   Click on "Phone Tree" and then "start."
   Who did NOT hear the rumor since 4D was knocked out?

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1. Repeat step 4 but pick 5 other random nodes (circles). Record who did not hear the rumor each time.

Person					
Who didn't hear the rumor?					

2. You can also figure out the shortest path from one node to another.
   Click on "Simulation" at the top.
   Click on "Shortest path"
   Put in the nodes that you want the shortest path for. Click on "Find Shortest Path".

Find the shortest path for 1C to 3E.	Find the shortest path from 5E to 1A	Make your own	Make your own	Make your own

3. Why do you think we use computer programs for networks?

4. Mr. Teacher Dave decides to give a pop quiz in class tomorrow. Student 5C hears Mr. Teacher Dave mention it to Mr. Robertson during lunch.
    a. Will the whole class know about the quiz by tomorrow? *(hint: leave the "statistics" window open to answer the next 3 questions)*

    b. Which person(s) will **receive** the **most** phone calls about the quiz? How many calls does this person receive?

    c. Which person(s) will **make** the **most** phone calls about the quiz? How many calls does this person make?

    d. Which person(s) will **make** the **fewest** phone calls about the quiz? How many calls does this person make?

    e. If one phone call takes 30 seconds to make, how long will it take for the first message to get from 5C to 2A? (show your work)

    f. If student 4D's phone runs out of batteries and he/she can't make or receive any calls, how many students will find out about the pop quiz?

    g. If Joan confiscates 3E's cell phone before 3E can share the information about the pop quiz, how many students will find out about the pop quiz?