1. The first few questions are all about “your” computer, which can be your actual computer, a borrowed computer, or a computer from one of the Instructional Computing Labs. The computer has to have internet access in order for these questions to make sense, but it can be either wireless or wired access.

(a) What computer is it that you are using? Does it have a name? Where is it sitting while you are investigating?

(b) What is your computer’s IP address? How did you find it?

(c) What is your computers MAC address? What does MAC stand for? How did you find it?

(d) What is the Subnet mask for you computer? What do you get if you apply the subnet mask to your computer’s IP address?

(e) What is your computer’s default gateway? What is a default gateway?
2. For the next few questions you will need to use traceroute and ping. On a Mac with OS X, start a Terminal application from your Utilities folder. Inside a Terminal application, the commands are the same as for UNIX. For a PC, Choose Run off the Start menu and type cmd in the box provided. Now you can type tracert for a traceroute or ping. For whois, on a UNIX system you can type whois, but it is probably easier to just use the whois search at http://www.internic.net (as the PC people will have to do).

(a) What is the numerical IP address for www.google.com?

(b) Use whois to find the mailing address for the official register of Google.com.

(c) Trace the route to www.google.com. How many hops are there between you and Google?

(d) Find Google addresses in various countries (such as Google.com.sa), run a ping on several of the regional Googles and compare the times.