Name_____   _____/20 pts.

Name_____

CS 3CN3 and SE 4C03 Winter 2009

Lab Exercise 1

Instructor: William M. Farmer
Revised: 26 January 2009

Assigned:	26 January 2009
Lab report due for Lab Session 1:	27 January 2009
Lab report due for Lab Session 2:	30 January 2009

Working together, you and your assigned group member will configure, secure, and administer a VMware host on the virtual Little Internet (A or B). This exercise is the first step.

1. Start up a web browser (preferably Internet Explorer 7) and type in the URL

    ```
    http://XXX:8222
    ```

    where `XXX` is the name of your assigned server (e.g., `vms3.mcmaster.ca`). Then choose the host your group is assigned (e.g., `host01`).

2. Install the Linux operating system on your host. Instructions for how to do this will be given in the lab. Set the gateway (for now) to be any IP address that is directly reachable from your host. Do not specify a DNS server.

3. Create two Unix groups named `group` and `guests`. Create password-protected user accounts for you and your partner. Use your MAC IDs for the names of these accounts. Add these accounts to the group `group`. Also create a password-protected user account named `instruct` with the password `changeme`. Add the `instruct` account to the group `group`. This account will be used by the instructor and the TA for marking purposes. Finally, create a password-protected user account named `intruder` with the password `letmein`. Add the `intruder` account to the group `guests`. This account will be used by nongroup members to log into your host. Set the default shell for `instruct` and `intruder` to `tcsh`.

4. From the Specification of the Little Internet A and B, draw a picture of the 24 hosts and 17 physical networks that constitute the Little Internet. Show what IP addresses and subnet masks are assigned to the network interfaces.

_____/6 pts.

5. Your host should have three network interfaces: `eth0`, `eth1`, and `lo`, the loopback interface. Use `ifconfig` to verify that your host has three active network interfaces with the correct IP addresses and subnet masks. Note any mistakes in the space below.

_____/2 pts.

6. Use `route -n` to look at your host's routing table. How many direct, nonhost routes does the table have? _____ How many indirect, nondefault, nonhost routes does the table have? _____ How many default routes does the table have? _____ How many direct and indirect host routes does the table have? _____

_____/4 pts.

7. Use `ping` to find the IP addresses of all Little Internet interfaces that are directly reachable from your host:

_____

_____

_____

_____

_____

_____

_____   _____/4 pts.

For your group's lab report, hand in this sheet, a copy of your picture of the Little Internet, and a paper copy of each group member's log book (if it is more convenient, you may hand this in at the beginning of the next lecture). If your log book is missing or incomplete, 4 points will be deducted from your mark. *You and your partner must hand the lab report in together before the end of the lab session. If you do not attend the lab session or leave the lab before handing in the lab report, you will receive a mark of 0 for the lab exercise.*