CIS 90 - Spring 2012 - TEST 2 - 30 points

Part 1 - These questions come from the online Flashcards (1 point each)

[Q1] How many inodes are needed for two files, one symbolically linked to the other?

[A1] _____

[Q2] What command is used to rename a file?

[A2] _____

[Q3] What complete command would create a symbolic link named accounts to */etc/passwd*?

[A3] _____

[Q4] What command would remove read permission for the group on a directory named Frost?

[A4] _____

[Q5] Where are the permissions for a file kept?

[A5] _____

[Q6] What command would set the permissions on the file *dogs* so that the owner would have full permissions, the group read and write, and no permissions for anyone else?

[A6] _____

[Q7] Without x (execute) permission for a directory, is it possible to cd into it?

[A7] _____

[Q8] What three file descriptors are opened automatically for every UNIX process?

[A8] _____

[Q9] What redirection symbol can be used to append standard output (stdout) to the end of a file?

[A9] _____

[Q10] What is the difference between?
find / | wc -l 2> /dev/null
and
find / 2> /dev/null | wc –l

[A10] _____

Part 2 – Use Sun in VLab for the following questions (1 point each)

Login to Sun, using your own username and VLab password:
- Use Putty from any of the classroom or CIS Lab stations
- Or use the **ssh** command from any of the Kate, Not-Opus, or Mr-Eko VMs in VLab. If you use VLab, be sure to reserve the VM first on Fang.

[Q11] On Sun, What is the <u>last</u> line of the file named *distros* in your *Miscellaneous* directory?
(Note: you will need to do a little troubleshooting before you can answer this question)

[A11] _____

[Q12] On Sun, how many lines in all the files in */home/cis90/depot* (including the subdirectories) contain the word "Benji"?

[A12] _____

[Q13] On Sun, what is the absolute path of the file containing "Lassie was here" in the */home/cis90/depot* directory (including its sub-directories)?

[A13] _____

[Q14] On Sun, of the three files Julius, Nero and Octavian in the */home/cis90/depot/empire/tivoli* directory, which contains the <u>fewest</u> words?

[A14] _____

[Q15] On Sun, is the command **goodcommand** on your path? If so, what is the inode number of the <u>directory</u> it is in?

[A15] _____

[Q16] On Sun, how many <u>directories</u> are there in */lib* (including all sub-directories)?

[A16] _____

[Q17] On Sun, what is the absolute pathname for the */etc/passwd* file?

[A17] _____

If you used VLab to get to Sun then be sure and shutdown your VM when finished and remove your reservation from Fang so it is available for the next student.

Part 3 – Use Opus to verify your answers to the following questions (1 point each)

[Q18] Sort <u>numerically</u> the numbers in */home/cis90/depot/randomints* and email the <u>first</u> 10 of them to rsimms on Opus using the **mail** command and a subject of "Test Q18".   What single command line does all this (no ;'s)?

[A18] _____

[Q19] What single command (no ;'s) would create this directory structure in your home directory?
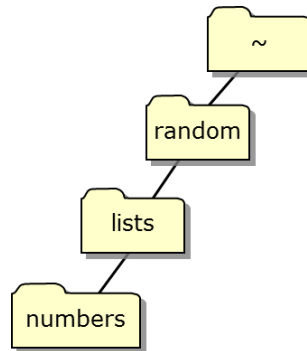

[A19] _____

[Q20] What command would allow others to write to your terminal device without changing any other permissions?

[A20] _____

[Q21] What is the numeric form of the permissions on the file in */home/cis90/depot/filetypes* whose inode number is 131486?

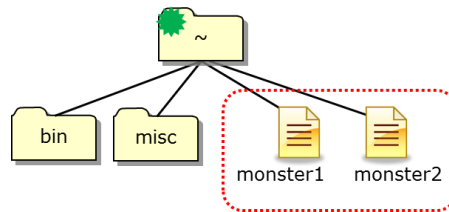[A21] _____

[Q22] From the directory with the ✳ what command using the three metacharacters [ ] * would copy only *randomints* and *randomjokes* from the *depot* directory to the new *numbers* directory created by the previous test question?
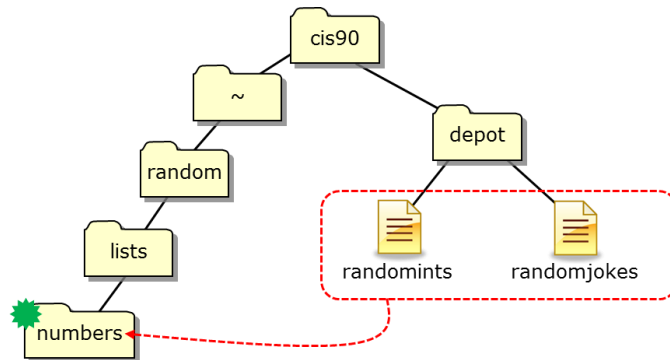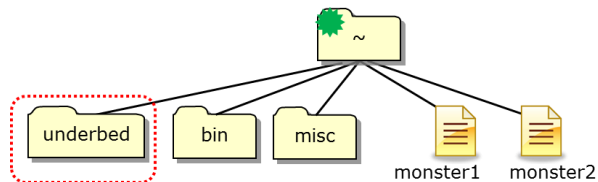
[A22] _____

[Q23] From the directory with the ✳ what command would create the file *monster1* and mon*ster2* in your home directory?
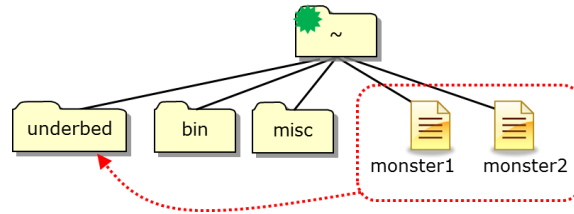
[A23] _____

[Q24] From the directory with the ✳ what command would create a directory named *underbed* in your home directory?

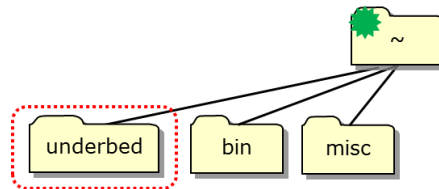[A24] _____

[Q25] From the directory with the ✳ what command would move *monster1* and mon*ster2* to the new *underbed* directory in your home directory?

[A25] _____

[Q26]] From the directory with the ✳ what single command (no ;'s) would, <u>without any interaction</u>, remove the *underbed* directory and each file in it?

[A26] _____

[Q27] Given the file *problems* contains these two lines:

```
123+57-3
12/0
```

What complete command (no ;'s) using **bc** would input the math problems in <u>*problems*</u>, **append** the calculated answers to the file <u>*answers*</u> and write any errors to the <u>bit bucket</u>?

[A27] _____

[Q28] Benji has the following file in his home directory:

```
/home/cis90/simben $ ls -l torbellino
-rw-rw-r-- 1 simben90 cis90 0 Apr  3 10:05 torbellino
```

If the umask value was <u>077</u> and he copied the *torbellino* file to *torbellino.copy*, what would the permissions, in numerical form, be on *torbellino.copy*?

[A28] _____

[Q29] What command would cause all future regular files to be created with read and write permission only for the owner, read permission only for the group, and no permissions whatsoever for others?

[A29] _____

[Q30] Parse the following command, what is the <u>first</u> argument passed to the **file** command?

file /boot/grub/st*[12] >> notarg1 2> notarg2

[A30] _____

Extra credit

[Q31] What is the numeric version of the permissions on the */tmp* directory?

[A31] _____

[Q32] From Benji's poems directory, what do the following two commands do?

```
cp -r Yeats/ poetry
grep -rl birds poetry/ | xargs sed -i 's/birds/pterodactyls/g'
```

[A32] _____

[Q33] cd into /home/cis90/simben, why does
find -name *egg
only find one egg file, yet
find -name "*egg"
finds multiple egg files?

[A33] _____