

Name _____

Mohawk Valley Community College

CI 132 Lab 17

Describe the actions performed and any output displayed by the following commands. Assume any referenced files exist and contain data.

1. `grep ab data`
2. `grep '^ab' data`
3. `grep -v 'ab$' data`
4. `grep a data | grep b`
5. `grep ab`

Provide the command(s) necessary to solve the following problems. The command string provided should be in its simplest possible form (don't use two commands where one will accomplish the task). You may need to create test files to work with.

6. Output to the screen lines containing last names which begin with the letter `R` in the file `/opt/ci132/data/filter_examples/names`

7. Use a single unix command to find the number of words beginning with the string **book**. Write the command used and the resulting count. The unix dictionary file is located within **/usr/share/dict/**

8. Display only the directories residing in **/opt/ci132/data**

9. Examining the Secure Shell daemon configuration on **csshell (/etc/ssh/sshd_config)**, we can see most of the lines are commented out with a **#** in the first character position. Having these commented configuration options contained in the file saves the administrator time if extra functionality needs to be enabled at some point in the future. The administrator can then simply uncomment the desired line without having to look up configuration keywords in the man pages.

With so many commented lines, it's difficult to quickly pick out the currently enabled configuration options. Provide a command string which will display to the screen only lines containing active configuration options.

10. The **ifconfig** command will display network devices known to the system and their configuration settings. A breakdown of a single device entry is as follows:

Device Name	MAC address
eth0:	
flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500	
inet 10.1.22.3 netmask 255.255.255.0 broadcast 10.1.22.255	
inet6 fe80::3862:33ff:fe30:3431 prefixlen 64 scopeid 0x20<link>	
ether 3a:62:33:30:34:31 txqueuelen 1000 (Ethernet)	
RX packets 4202795 bytes 557801841 (531.9 MiB)	
RX errors 0 dropped 1920255 overruns 0 frame 0	
TX packets 2174263 bytes 512733655 (488.9 MiB)	
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0	

Provide a command string to extract from the output of the **ifconfig** command and display the requested information. Your output must only contain the items requested:

- a. a list of mac addresses for all network devices on **csshell**. Your output must contain only the list of mac addresses.
- b. a list of all known network device names on **csshell**. Your output must contain only the list of device names.