UNIX Developer Tools

Name:		
Editing Files		
1.	Write the command line to use vi or vim to edit a file	
2.	From within vim, how would you save a file	
3.	From within vim, how would force save a file	
4.	From within vim, how you insert one file into another file	
5.	From within vim, how you replace all commas with colons in the entire file	
6.	How does the previous command compare with the "sed" command?	

GIT

All of these questions, give the git command line:

- 1. Clone a repository:
- 2. Create a brand new git repository:
- 3. Create a branch in a repo:
- 4. Commit a change to a branch:
- 5. Push a change to a remote:
- 6. Add a remote repository to a local repo:
- 7. Remove a remote repository from your local repo:
- 8. Merge changes from one repo to another:
- 9. Fetch changes from a remote:

GIT + Steroids

All of these questions, give the git command line:

1. Write the command line (or a shell script) that will list all of the branches that have a "totest" tag (yes, Git supports tags), and for each of those branches, check out the branch, and execute a "make" to build to software, and then execute a "test" command to run the test. Just print the results.

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2.	Write the command line (or a shell script) that will list all of the branches that have a "toreview" and create a report that shows the author, the git commits, and the changes in the files. Then, remove the tag.

GDB

1.	How do you turn on "core files" when a program crashes?
2.	Use GDB to run a program
3.	Set the command line arguments within GDB
4.	Set a break point on invoking a function call
5.	Set a break point on a line of a source file
6.	Set a break point whenever a value of a variable changes
7.	Set a break point whenever a value of a variable becomes 3
8.	Show the local variables of a function

Other Developer Tools

- 1. Use valgrind to find memory leaks in a C program
- 2. What tool can you use to inspect the raw, binary, contents of any file?
- 3. Find out how much time (real, user, and sys) that a program requires:
- 4. Use "strace" command to inspect all file I/O for a program such as "/bin/ls"
- 5. Use "readelf" to read the Executable and Linker Format header information for an executable (but only the header)
- 6. Find out the run-time libraries need by a Linux ELF program and what the actual libraries that match those requirements are.