

# Quiz 1: Study guide

This is a study guide to help you prepare for the quiz. It will give you a preview of what the questions on the quiz will look like. Although this guide only lists one possible answer for each question, some questions have multiple right answers. It is up to you to figure out what they are.

## Part 1: Unix commands, bash scripting, and regex

**Q1.** What command allows you to enter into a directory?

```
cd
```

For **Questions 2 - 8**, assume you have a file called “students.txt” which contains a list of students’ names where the first column is a student’s first name and the second column is a student’s last name:

```
John Doe
Sally Parker
Betty Smith
Will Davis
Edward Brown
```

**Q2.** What is the output of the command `cat students.txt` ?

```
John Doe
Sally Parker
Betty Smith
Will Davis
Edward Brown
```

**Q3.** What command can you use to sort the file “students.txt”?

```
sort students.txt
```

**Q4.** What command can you use to list all of the student’s names that contain the letter “a”?

```
grep 'a' students.txt
```

**Q5.** What command can you use to list all of the student’s names that start with the letter “B”?

```
grep '^B' students.txt
```

**Q6.** What command can you use to list all of the student's names that contain the letter "a" sorted by students' first names?

```
grep 'a' students.txt | sort
```

**Q7.** What is the output of the command `cat students.txt | wc -l` ?

5

**Q8.** Assume you have a bash script called "example.sh" that looks like this:

```
#!/bin/bash
while read line
do
    echo $line
done < $1
```

Pretend you execute the script with "students.txt" as the first command-line argument (e.g., `sh example.sh students.txt`). What does this script output?

The script outputs the contents of the file `students.txt` line by line so the output would be:

```
John Doe
Sally Parker
Betty Smith
Will Davis
Edward Brown
```

**Q9.** What command can you use to change the permissions of a file?

```
chmod
```

**Q10.** Pretend that you have created a variable "a" using the following command:

```
a=1+2
```

What is the output of the command `echo $a`?

1+2

**Q11.** Pretend that you have created two variables “a” and “b” using the following commands:

```
a=1  
b=2
```

What command(s) can you use to output the sum of a and b?

```
let c=$a+$b  
echo $c
```

## Part 2: Git version control

**Q12.** Match the following git commands with the description of the commands function/purpose:

1. git checkout
2. git add
3. git commit
4. git log
5. git branch
6. git pull
7. git push

4	shows a record of recent commits
7	copies files from the local git repository to the remote git repository
1	moves the HEAD pointer to a different branch, making that branch active
3	copies staged files into the local git repository
2	stages a file (i.e., adds the file to git index) making it ready for a commit
5	list all the local branches
6	copies files from the remote git repository to the local repository and merges the changes