# Answer Sheet

The following page should be completed during/before the lab.

## Step 1: Linux file manipulation commands

|  |  |
| --- | --- |
|  | **Description** |
| cat | Prints content of a file |
| cd | Changes working directory |
| pwd | Prints working directory |
| mkdir | Creates new directory |
| rm | Removes file |
| rmdir | Removes a directory |
| link | Creates a link to another directory |
| cp | Copy files |
| mv | Move files |
| more | Display content in files with pagination |
| head | Prints the first few lines in a file |
| tail | Prints the last few lines in a file |
| chmod | Change permissions of a file/directory |
| chown | Change ownership of a file/directory |

## Step 2: Using ‘ls’

Answers to the questions (refer to lab sheet for the questions)

1. Bytes

2. The file was edited

3.

MM DD YYYY: The file hasn't been edited in this year.

MM DD HH:mm: The file has been edited in this year.

4. ls folder. folder

## Step 3: Copying Files

* Command used
  + Mkdir osmod
  + cp start.sh osmod

* Information unchanged

File permissions and ownership

* Information changed (if any)

Last modified date

## Step 4: Using Pipes

* Sorting files by name; command:

Ls | sort

* Sorting files by size; command

Ls -l | wc

## Step 5: File access permissions

* -rwxr--r--. 1 tassos staffphdguest 949 Oct 5 10:16 Fork.c

What are the file access permissions for user tassos, his user group and the rest of the users?

Owner has full perms, owner group and public can only read

* In the previous example, what effect would the following command have? chmod 644 Fork.c

644 means the owner can read and write but not execute; the owner group and public can only read.

* Briefly explain the numerical coding used (as in the previous example) to describe file access permissions in Linux.

It is a 3 digit number that represents the permission for the file owner, owner group and the public. Each digit is made up of 3 bits, representing Read, Write and Execute respectively. So each digit can only be 0-7