

Problem 1:

A) Navigate and List:

Answer a: Step 1: `cd /`
Step 2: `cd home`
Step 3: `ls`
Step 4: `mkdir LinuxAssignment`

B) File Management:

Answer a: Step 1: `cd LinuxAssignment`
Step 2: `touch file1.txt`
Step 3: `ls`

C) Directory Management:

Answer a: Step 1: `mkdir docs`

D) Copy and Move Files:

Answer a: Step 1: `cp file1.txt docs`
Step 2: `mv file1.txt file2.txt`

E) Permissions and Ownership:

Answer a: Step 1: `chmod u+rwx,g-wx,o-wx file2.txt`
Step 2: `chown $(whoami) file2.txt`

F) Final Checklist:

Answer a: Step 1: `ls -l LinuxAssignment`
Step 2: `ls -l /`

G) File Searching:

Answer a: Step 1: `find . -type f -name "*.txt"`
Answer b: Step 1: `grep "Hello" file1.txt`

H) System Information:

Answer a: Step 1: `date`

I) Networking:

Answer a: Step 1: `ifconfig`
Answer b: Step 1: `ping example.com`

J) File Compression:

Answer a: Step 1: `zip -r docs.zip docs`

Answer b: Step 1: `unzip docs.zip -d docs`

K) File Editing:

Answer a: Step 1: type 'Hello' in text file

Answer b: Step 1: `sed -i '' 's/Hello/New_Word/g' file1.txt`

Problem 2:

Answer a: `head -n 10 data.txt`

Answer b: `tail -n 5 data.txt`

Answer c: `head -n 15 numbers.txt`

Answer d: `tail -n 3 numbers.txt`

Answer e: `tr '[:lower:]' '[:upper:]' < input.txt > output.txt`

Answer f: `uniq duplicate.txt`

Answer g: `uniq -c fruit.txt`