

Exercise 3

Create a directory called "random" that we'll work in.

```
ssh -Y username@astronomy.nmsu.edu
mkdir random
cd random
```

Generate a random numbers between 1 and 10 and write them to a file ran.txt:

```
top -n 2 > ran.txt (on a mac, use top -l 2)
```

Count how many times the number 7 just cropped up:

```
grep -c "7" ran.txt
```

Now do the same, but any time that the number 10 crops up, replace it with the string "TEN", then write that to a different file:

```
top -n 2 | sed 's/10/TEN/' > ran_replace10.txt
```

same as before, but add a line number in front so we know where we are in the list. Also, just inspect the results using "more" rather than putting them into a file (when inspecting stuff in "more", use "j" and "k" to scroll down and "q" to quit).

```
top -n 2 | sed 's/10/TEN/' | awk '{print NR,$1}' | more
```

Use head to display the first 5 lines of this file.

Now use tail to display the last 5 lines.

Now use history to find the number of the command that generated this file, and re-generate the file, but this time use the ! shortcut. For example, if the top command was 372, enter !372. Then use head and tail to check whether the file is the same as before or different.

```
cd ..
rm -rf random
```