Moving Around CLI:
ls – List directory contents (ls –ltra)
mkdir – Make directory
rmdir – Remove directory
cp – Copy file/directory (cp –a)
rm – Remove file/directory (rm –rf)
mv – Move files/dirs or rename
touch – Create empty file, update time stamp

Working with Text:
echo – Echoes back text to terminal or file
cat – Concatenate, print a file out, top down
tac – Print a file out, bottom up
head – Print the top xx lines out (–n 100)
tail – Print the last xx lines out (–f)
more – Print text, page per page
less – Like more, ability to go line by line
diff – Compare contents of files/directories

Text Parsing Tools:
grep – Searches for text strings
sort – Will sort text output
uniq – Condenses text to unique instances
wc – Word count (or line count)
cut – Extract data from delimited output

More Advanced Text Tools:
awk – Manipulates data and generates reports
sed – Stream editor, text transformation

File System/Disk Information:
df – Disk Free (-h)
du – Disk Usage (--max-depth=1 –h)
lsblk – List block devices (-f)
find – Find files (find / -name search*)
which – Where is the binary
locate – Optional package (updatedb)

File/Directory Permissions:
chown – Change owner/group of file/dir
chmod – Change file/dir modes
Permissions for chmod:
4 – (R)ead
2 – (W)rite
1 – E(x)ecute
Ex. 7 = RWX 5 = R-X 4 = R--

Process Management:
ps - Process list (ps fax)
top - System monitor, Sort by (M)em, C(P)U
kill xxx - Kill process PID, get from ps or top
killall process_name - Kill process name

Job Management:
./command.sh **&** - & forces to run in bkgrnd
jobs – Lists jobs running
fg – Will bring job to foreground
bg – Forces job to background
nohup process & - Process will run post logout
Ctrl-z – Suspends task

Saving Sessions:
screen / tmux – Allows a user to have multiple shells
on one connection, can disconnect and re-attach to
it later

Network Essentials:
ifconfig – Lists network adapters/IP info
ip address – Lists network adapters/IP info
ping ip/dnsname – See if you can reach IP
traceroute/tracepath – Show hops to IP
nslookup google.com – Lookup IP address
netstat: Show ports (netstat -nap), processes
listening on ports, (netstat –nr) shows default
gateway
systemd-resolve –status – Shows DNS servers

Process Elevation:
sudo command – Elevates a single command
su – Super user, change to root (su -)
su – username – Switch user to specified user
id – Shows current user and group membership

Bash History Management:
history – Lists last 1000 commands
cat ~/.bash_history - Same as history
!### - Runs command number from history
Ctrl-r – Reverse search in history

Help:
man – Manual pages
command –help – Shows available flags
info – Bash manual

IO Redirection:
> - Redirect output to file
>> - Add redirected output to file
| - Out one program into another

Bash Envionment:
env – List all environmental variables
set – Set a variable
export – Export variable

Bash Shortcuts (Pico/Nano):
Ctrl-a – Beginning of line
Ctrl-c - Cancel
Ctrl-e – End of line
Ctrl-k - Cut from cursor forward
Ctrl-y – Paste the cut
Ctrl-p – Back (up arrow)
Ctrl-n – Next in CLI history (down arrow)
Ctrl-l – Clear screen
Ctrl-s – Freezes the screen
Ctrl-q – Will unlock your screen
Ctrl-h – Backspace replacement
Ctrl-d – Delete or logout (on empty line)
Tab – Command line completion
Shift Insert - Highlight paste
Shift Pg-Up – Scroll up in terminal
Shift Pg-Down – Scroll down in term

vi/vim Text Editor Shortcuts:
Command Mode (Escape key):
Arrow keys to move (may not work with vi)
h – Back (left arrow)
j – Next line (down arrow)
k – Previous line (up arrow)
l – Forward (right arrow)
dd – Delete line (type 10 before will del 10 lines)
yy – Yank line (also accepts a number before)
p – Paste line
u – Undo
/ - Search, n for next, p for previous
:1 – First line, xx number to that line number
:$ - End of File
:w – Write
:wq – Write & quit
:w filename.txt – Write to a specific name
:q! – Quit without writing
vi/vim Edit Mode ((a)ppend or (i)nsert):
Works much like notepad, escape to return
to command mode.

Ubuntu (Debian) Package Management:
apt – Pull dependencies/packages from Internet
dpkg – Debian Package manager, more local
To upgrade:
apt update
apt upgrade
Other useful commands:
apt search packagename
apt install packagename
apt remove packagename
apt list –installed
dpkg –i localpackage.deb

Redhat/CentOS/Fedora RPM Package Mgmt:
yum – YellowDog Update Manager, like apt
dnf – New version of Yum
rpm – Redhat package manager
To upgrade:
yum update
Other useful commands:
yum install packagename
yum whatprovides somelibrary
yum search packagename
yum remove packagename
rpm –Uvh package.rpm – Updates/installs pkg
rpm –e package – Removes package
rpm –qa – List all packages
rpm –qif /some/file – Tells you what pkg file
rpm –qil package – List files in package