Hardware Information

dmesg	Show bootup messages
cat /proc/cpuinfo	Show CPU information
free -h	Show free and used memory
lshw	Hardware configuration info
lsblk	Block devices info
lspci -tv	Tree-diagram of PCI devices
lsusb -tv	Tree-diagram of USB devices
dmidecode	Show BIOS hardware info
hdparm -i /dev/[disk]	Show disk data info
hdparm -tT /dev/[disk]	Disk read speed test
badblocks -s /dev/[disk]	Unreadable blocks test

File Compression

tar cf [file.tar] [file]	Create a tar file from a file
tar xf [file.tar]	Extract archived file
tar czf [file.tar.gz]	Create a gzip tar file
gzip [file]	Create a gz compressed file

Package Installation

yum search [keyword]	Find a package by a keyword
yum info [package]	Package info & summary
yum install [package.rpm]	Install a package with YUM
dnf install [package.rpm]	Install a package with DNF
rpm -i [package.rpm]	Install a local rpm package
rpm -e [package.rpm]	Remove an rpm package
apt install [package]	Install a package with APT
tar zxvf [source_code.tar.gz] cd [source_code] ./configure make make install	Install software from source code

SSH Login

ssh [user]@[host]	Connect to host as user
ssh [host]	Connect to host via port 22
ssh -p [port] [user]@[host]	Use a non-default port
telnet [host]	Connect to Telnet via port 23

Searching

grep [pattern] [file]	Search for a pattern in a file
grep -r [pattern] [directory]	Search a pattern recursively
locate [name]	Search for files & directories
find [/location] -name [x]	List items beginning with [x]
find [/location] -size [+100M]	List items larger than 100MB

File Transfer

scp [file.txt] [server/tmp]	Securely copy file to server
rsync -a [/location] [/backup/]	Sync the contents of a location with the backup directory

Process Related

ps	Show active process snapshot
pstree	Show processes as a tree
pmap	Show process memory usage
top	Show all running processes
kill [process_id]	Kill the process by ID
pkill [process_name]	Kill the process by name
killall [process_name]	Kill all processes by name
bg	List background processes
fg	Most recent suspended job to foreground
fg [job]	Bring [job] to foreground
lsof	List files opened by processes
trap "[commands]" [signal]	Execute command on signal
wait	Pause terminal until process completes
nohup [command] &	Run a process in background

File Permission

chmod 777 [file]	File read, write, execute permissions to everyone
chmod 755 [file]	Full permission to owner, read permissions for others
chmod 766 [file]	Full permission to owner, read and write for others
chown [user] [file]	Change file ownership
chown [user]:[group] [file]	Change file owner and group

File Commands

ls	List files in the directory
ls -a	List files, include hidden files
pwd	Show current directory
mkdir [name]	Create a directory
rm [file]	Remove a file
rm -r [directory]	Recursively remove directory
rm -rf [directory]	Force remove directory
cp [file1] [file2]	Copy file1 to file2
cp -r [directory1] [directory2]	Copy directory1 to directory2
mv [filename1] [filename2]	Rename a file
ln -s [/path/file] [link]	Create a symbolic link to file
touch [file]	Create a new file
more [file]	Show file contents
head [file]	Show first 10 lines of a file
tail [file]	Show last 10 lines of a file
gpg -c [file]	Encrypt a file
gpg [file.gpg]	Decrypt a file
wc	Count words/lines/bytes
ls	xargs wc	Words/lines/bytes in directory
cut -d[delimiter] [file]	Cut file section and print
[data]	cut -d[delimiter]	Cut data section and print
awk '[pattern] {print $0}' [file]	Print lines matching a pattern
shred -u [file]	Overwrite and delete a file
diff [file1] [file2]	Compare two files
source [file]	Compile from source code
[command]	tee [filename] >/ dev/null	Store command output to a file, skip terminal output

Users and Groups

id	Show active user details
last	Show last system logins
who	Show who is logged in
w	Show logged users and activity
groupadd [group]	Add a new group
adduser [user]	Add a new user
usermod -aG [group] [user]	Add user to group
userdel [user]	Delete a user
usermod	Modify user information
chgrp [group] [directory]	Change directory group

System Management and Info

uname -r	Show system information
uname -a	Show kernel release info
uptime	Show uptime length/avg. load
hostname	Show system hostname
hostname -I	Show system IP address
last reboot	Show reboot history
date	Show current time and date
timedatectl	Manage the system clock
cal	Show current day and month
whoami	Show current user
finger [username]	Show user information
ulimit [flags] [limit]	View or limit system resources
shutdown [hh:mm]	Schedule a system shut down
shutdown now	Shut down immediately
modprobe [module-name]	Add a new kernel module

Network Management

ip addr show	Show IP addresses
ip address add [ip]	Assign IP address to interface
ifconfig	Show all network interfaces
netstat -pnltu	Show active listening ports
netstat -nutlp	Show tcp and udp ports
whois [domain]	Show domain information
dig [domain]	Show domain's DNS info
dig -x [host]	Domain reverse lookup
dig -x [ip]	IP address reverse lookup
host [domain]	IP lookup for a domain
hostname -I	Show local IP address
wget [file_url]	Download a file from url
curl -O [file_url]	Download a file from url
nslookup [domain]	Show domain information

Directory Navigation

cd ..	Move up one level
cd	Change directory to $HOME
cd [/location]	Change to specified directory

Disk Usage

df -h	Show free space on system
df -I	Show free nodes on system
fdisk -I	Disk partition types and sizes
du -ah	Show disk usage for all files
du -sh	Show disk usage for current directory
findmnt	Show target mount point
mount [device] [mount_point]	Mount a device

Variables

let "[variable]=[value]"	Assign integer value to var
export [variable]	Export a Bash variable
declare [variable]="[value]"	Declare a Bash variable
set	List variables and functions
echo $[variable]	Display value of the variable

Shell Command Management

alias [alias]='[command]'	Create command alias
watch -n [interval] [command]	Set interval to run a command
sleep [interval] && [command]	Postpone command execution
at [hh:mm]	Schedule a job
man [command]	Display command manual
history	Print command history

Keyboard Shortcuts

Ctrl + C	Kill current process
Ctrl + Z	Stop process (can be resumed)
Ctrl + W	Cut the word before the cursor
Ctrl + U	Cut part of the line before the cursor
Ctrl + K	Cut part of the line after the cursor
Ctrl + Y	Paste from clipboard
Ctrl + R	Recall last command
Ctrl + O	Run the recalled command
Ctrl + G	Exit command history
!!	Repeat the last command
exit	Log out of the session