Create directory testdir in parent shell working directory. testdir contains files test.o, f1.txt, f2.txt, f3.txt, f4.txt, f5.txt, f6.txt, and f7.txt. f2.txt, f4.txt, f5.txt, f6.txt, and f7.txt are empty. test.o is an executable which prints “test executable”. Assume there are two users: the current user, named joe, and another user, jane.

f1.txt contains:

apple

carrot

banana

f3.txt contains:

apple

banana

carrot

banana

elk

Test command sequence:

Input	Output
alias a b	
alias c d	
alias	a=b c=d
unalias c	
alias b c	
alias c "echo test"	
cd ./testdir	
a	test
unalias b	
cd testdir	
alias	a=b c="echo test"
pwd	<parent shell working directory path> + /testdir
cd ..	
pwd	<parent shell working directory path>
cd /bin	
pwd	/bin
cd ${HOME}	
pwd	<parent shell working directory path>

alias b a	<error message related to alias infinite loop expansion>
alias b c	
alias c a	<error message related to alias infinite loop expansion>
alias	a=b c="echo test" b=c
ali	<error message related to command not found>
setenv e c	
unalias ${e}	
alias	a=b b=c
setenv PATH .:/usr/bin:/usr/local/bin:./testdir	
unsetenv PATH	<error message related to unsetting PATH>
unsetenv HOME	<error message related to unsetting HOME>
printenv	PATH= .:/usr/bin:/usr/local/bin:./testdir HOME= <parent shell working directory path> (possibly more) e=c
alias z z	<error message related to alias infinite loop expansion>
ls	<parent shell working directory content>
./testdir/test.o	test executable
ls testdir	test.o f1.txt f2.txt f3.txt f4.txt f5.txt f6.txt
echo "${e}"	c
echo "a b"	a b
ssh ip_address	ssh: connect to host ip_address port 22: Connection refused
date	<current date and time>
ping	ping: usage error: Destination address required
cd testdir	
rm f2.txt	
ls	test.o f1.txt f3.txt f4.txt f5.txt f6.txt

tty	/dev/pts/0
touch f2.txt	
mkdir testdir2	
ls -lah	<permissions … > . <permissions … > .. <permissions … > test.o <permissions … > f1.txt <permissions … > f2.txt <permissions … > f3.txt <permissions … > f4.txt <permissions … > f5.txt <permissions … > f6.txt <permissions … > f7.txt <permissions …> testdir2
cd testdir2	
pwd	<parent shell working directory path> + /testdir/testdir2
cd ../..	
rmdir testdir/testdir2	
ls testdir	test.o f1.txt f3.txt f4.txt f5.txt f6.txt
alias lo jj	
alias	a=b b=c lo=jj
alias jj "ls -al	
setenv this .	
setenv lsthis "jj ${this}"	
${lsthis}	<parent shell working directory content in long format, showing hidden files>
alias rot13 "tr a-zA-Z n-za-mN-ZA-M"	
alias	a=b b=c lo=jj rot13=tr a-zA-Z n-za-mN-ZA-M
cd testdir	
cat f1.txt > f2.txt	
cat f2.txt	apple carrot banana

sort < f2.txt > f1.txt	
cat f1.txt	apple banana carrot
wc < f3.txt	5 5 31
cat missing.txt > f5.txt 2>&1	
cat f5.txt	cat: missing.txt: No such file or directory
cat missing2.txt 2>f5.txt	
echo “hello word” >> f5.txt	
cat f5.txt	cat: missing2.txt: No such file or directory hello world
printenv > f5.txt	
cat f5.txt	PATH= .:/usr/bin:/usr/local/bin:./testdir HOME= <parent shell working directory path> (possibly more) e=c
alias >> f5.txt	
cat f5.txt	PATH= .:/usr/bin:/usr/local/bin:./testdir HOME= <parent shell working directory path> (possibly more) e=c a=b b=c lo=jj rot13=tr a-zA-Z n-za-mN-ZA-M
wc -l f3.txt f1.txt | sort	3 f1.txt 5 f3.txt 8 total
cat f3.txt | head -2 | tail -1	banana
ls -l | grep "txt" | awk '{print $5 " " $3 " " $9}' | sort -n | tail -5 | rev | head -2	txt.7f eoj 0 txt.1f eoj 02
grep "a" | grep "banana" | wc -c < f3.txt > f6.txt	

cat f6.txt	14
cat f3.txt | grep "banana" | tee f4.txt | wc –l > f6.txt	
cat f4.txt	banana banana
cat f6.txt	2
ls -l | grep "txt" | awk '{print $5 " " $3 " " $9}' | sort -n | tail -5 | rev | head -2 > f3.txt	
cat f3.txt	txt.4f eoj 41 txt.1f eoj 02
ls -l | grep "txt" | awk '{print $5 " " $3 " " $9}' | sort -n | tail -5 | rev | head -2 > f7.txt &	
cat f7.txt	txt.4f eoj 41 txt.1f eoj 02
echo “hello world” &	hello world
ls f?.txt *.c	f1.txt f2.txt f3.txt f4.txt f5.txt f6.txt f7.txt lex.yy.c nutshell.c nutshparser.tab.c (possibly more and/or different file names)
mkdir testdir	
cd /test?dir	
pwd	<parent shell working directory path> + /test/testdir
cd ../../te (ESC key pressed)	
pwd	<parent shell working directory path> + /test
cd ~ja (ESC key pressed)	<jane's home directory>
pwd	<jane's home directory> + /jane (assuming /jane exists in that dir.)
setenv PATH .:/usr/bin:/usr/local/bin:~joe/bin:~/bin	
cd ~	
pwd	<current user’s (joe) home directory>

cd ~/jane	
pwd	<jane's home directory>
mkdir "~tildetest"	
cd "~tildetest"	
pwd	<parent shell working directory path> + /~tildetest
cd ~jane/bin	
pwd	<jane's home directory> + /bin (assuming /bin exists in that dir.)
bye	(exit shell)