

```
basicsys@mars~/lec5>wc -l
abcd
aa
bb
3
```

```
basicsys@mars~/lec5>cut -c2,4
abcdefg
123456
bd
24
```

```
basicsys@mars~/lec5>cat
abcde
abcde
ghet
ghet
aaabbb
aaabbb
```

```
basicsys@mars~/lec5>x=$(cat)
adsfa
123456
aabbcc
```

```
basicsys@mars~/lec5>echo "$x"
adsfa
123456
aabbcc
```

```
basicsys@mars~/lec5>cat F1
dsfjadslf
fsdf
sdffdsf
```

```
basicsys@mars~/lec5>cat F2
132432144
344
4132421341
555
```

```
basicsys@mars~/lec5>wc -l F1 F2
 3 F1
 4 F2
 7 total
```

```
basicsys@mars~/lec5>wc -l F1 - F2
   3 F1
fadsfa
fsafd
sdf
df
dsd
   5 -
   4 F2
  12 total
```

```
basicsys@mars~/lec5>cat F3
11
22
```

```
basicsys@mars~/lec5>wc -l F1 - F2 < F3
 3 F1
 2 -
 4 F2
 9 total
```

```
basicsys@mars~/lec5>wc F1 F3 < F2
 3  3 23 F1
 2  2  6 F3
 5  5 29 total
```

```
basicsys@mars~/lec5>wc -l F1 F3 < F2
 3 F1
 2 F3
 5 total
```

```
basicsys@mars~/lec5>wc -l < F2
4
```

```
basicsys@mars~/lec5>wc -l - < F2
4 -
```

```
basicssystem@mars~/lec5>cat F1
```

```
10  
300  
5  
2000
```

```
basicssystem@mars~/lec5>sort -n F1
```

```
5  
10  
300  
2000
```

```
basicssystem@mars~/lec5>sort -n -r F1
```

```
2000  
300  
10  
5
```

```
basicssystem@mars~/lec5>sort F1
```

```
10  
2000  
300  
5
```

```
basicssystem@mars~/lec5>cat F2
```

```
30  
20  
10  
30  
40  
10  
10  
100
```

```
basicssystem@mars~/lec5>sort -n -u F2
```

```
10  
20  
30  
40  
100
```

```
basicssys@mars~/lec5>sort -u F2
```

```
10  
100  
20  
30  
40
```

```
basicssys@mars~/lec5>sort
```

```
10  
20  
100  
20  
3  
10  
100  
20  
20  
3
```

```
basicssys@mars~/lec5>sort -n
```

```
10  
30  
100  
2  
2  
10  
30  
100
```

```
basicssys@mars~/lec5>sort < F1
```

```
10  
2000  
300  
5
```

```
basicssys@mars~/lec5>sort -n < F1
```

```
5  
10  
300  
2000
```

```
basicssystem@mars~/lec5>cat F1 >| tmp
```

```
basicssystem@mars~/lec5>sort < tmp
```

```
10  
2000  
300  
5
```

```
basicssystem@mars~/lec5>cat F1 | sort
```

```
10  
2000  
300  
5
```

```
basicssystem@mars~/lec5>cat F2
```

```
30  
20  
10  
30  
40  
10  
10  
100
```

```
basicssystem@mars~/lec5>cat F1 | sort -n -u F2
```

```
10  
20  
30  
40  
100
```

```
basicssystem@mars~/lec5>cat F1 | sort -n -u
```

```
5  
10  
300  
2000
```

```

basicsys@mars~/lec5>x="ab cd ef gh"

basicsys@mars~/lec5>echo "$x" >| tmp

basicsys@mars~/lec5>cut -d" " -f1,3 < tmp
ab ef

basicsys@mars~/lec5>echo "$x" | cut -d" " -f1,3
ab ef

basicsys@mars~/lec5>cat F1
3000
10
300
5
2000

basicsys@mars~/lec5>sort -n F1 | tail -1
3000

basicsys@mars~/lec5>wc -l F*
  5 F1
  8 F2
  2 F3
15 total

basicsys@mars~/lec5>wc -l F* | cut -d" " -f2
5
8
2
total

basicsys@mars~/lec5>wc -l F* | cut -d" " -f2 |
sort -n
total
2
5
8

basicsys@mars~/lec5>wc -l F* | cut -d" " -f2 |
sort -n | tail -1
8

```

```
basicsys@mars~/lec5>x=${$(echo $(wc -l F*) | wc -w)-2}
```

```
basicsys@mars~/lec5>echo $x  
6
```

```
basicsys@mars~/lec5>y=$(seq 1 2 $x)
```

```
basicsys@mars~/lec5>echo $y  
1 3 5
```

```
basicsys@mars~/lec5>z=$(echo $y | tr " " ",")
```

```
basicsys@mars~/lec5>echo $z  
1,3,5
```

```
basicsys@mars~/lec5>echo $(wc -l F*) | cut -d" " -f$z  
5 8 2
```

```
basicsys@mars~/lec5>echo $(wc -l F*) | cut -d" " -f$z | \  
> tr " " "\n" | sort -n | tail -1  
8
```

```
basicsys@mars~/lec5>echo "ab cd ef" | cut -c1,3,5  
a d
```

```
basicsys@mars~/lec5>cat F1  
10  
10  
10  
29  
29  
ab  
ab  
88  
ab  
ab  
10  
10  
88
```

```
basicssystem@mars~/lec5>uniq F1
```

```
10  
29  
ab  
88  
ab  
10  
88
```

```
basicssystem@mars~/lec5>uniq -u F1
```

```
88  
88
```

```
basicssystem@mars~/lec5>uniq -d F1
```

```
10  
29  
ab  
ab  
10
```

```
basicssystem@mars~/lec5>uniq -c F1
```

```
3 10  
2 29  
2 ab  
1 88  
2 ab  
2 10  
1 88
```

```
basicssystem@mars~/lec5>cat F1
```

```
abc  aa  abc  
abc  bb  aa  
bb xyz  aa  
bb
```

```
basicssystem@mars~/lec5>cat F1 | tr -s " " "\n" |
```

```
sort | uniq -c
```

```
3 aa  
3 abc  
3 bb  
1 xyz
```

```

basicsys@mars~/lec5>cat P1
if [ 5 -gt 5 -o 5 -eq 5 ]
then
  echo "(5 > 5) | (5 = 5)"
fi
if [ 5 -gt 5 -a 5 -eq 5 ]
then
  echo "(5 > 5) & (5 = 5)"
fi

```

```

basicsys@mars~/lec5>P1
(5 > 5) | (5 = 5)

```

```

basicsys@mars~/lec5>cat P1
x=10
y=5
z=8
if [ \( $x -gt $y -o $y -gt $z \) -a \( $x -gt 0
-o $x -le 8 \) ]
then
  echo " ( (x > y) | (y > z) ) & (( x > 0 ) | ( x <= 8 ))"
fi

```

```

basicsys@mars~/lec5>P1
( (x > y) | (y > z) ) & (( x > 0 ) | ( x <= 8 ))

```

```

basicsys@mars~/lec5>cat P1
x=10
y=5
z=8
if [ \( $x -gt $y -o $y -gt $z \) -a ! \( $x -gt
0 \) ]
then
  echo " ( (x > y) | (y > z) ) & !( x > 0 )"
else
  echo "it is not true that: ( (x > y) | (y > z)
) & !( x > 0 )"
fi

```

```

basicsys@mars~/lec5>P1
it is not true that: ( (x > y) | (y > z) ) & !(
x > 0 )

```