1. **There are 50 dice. 20 of them are facing 4. Remaining 30 are facing 3. You can't see which dice is facing what number. Write pseudo code to separate these 50 dice into 2 groups, so that both groups have the same number of 4's.**

Total dices: 50
Total four face showing dices: 20
Total three face showing dices: 30

Task: To separate the 50 dices group to two group have equal number of 4's facing dices

Pesudo Code:
Step 1
  Randomly selecting one dice(d1) from 50 dices.
Step 2:
  looping all the dices in dice list from i=1 to i<=50
Step 3:
  If d1==dices[i] until i<=50
    then tempArr1.add(d[i])
  else
    then.tempArr2.add(d[i])
Step 4:
  Comparing the tempArr have length of 30 or 20 to know which are number of 3's or number 4's dices.
  If temparr1.length==20
    then
      dicesOfFour.addAll(tempArr1);
      dicesOfThree.addAll(tempArr2);
  else
    then
      dicesOfFour.addAll(tempArr2);
      dicesOfThree.addAll(tempArr1);
Step 5:
  Separate these 50 dice into 2 groups, so that both groups have the same number of 4's.
  groupOne.addAll(dicesOfFour.sublist(0,10))
  groupOne.addAll(dicesOfThree.sublist(0,15))
  groupTwo.addAll(dicesOfFour.sublist(10,20))
  groupTwo.addAll(dicesOfThree.sublist(15,30))

Output: The groupOne list consist of 10 four facing dices and 15 three facing dices same as to groupTwo.

2. **A comma separated file(csv) has 5 columns and 10 rows. Write shell commands to extract the value of 3rd column 5th row and output the result into a text file.**

We created the data of employee at bank in employee_data.csv
In file employee_data.csv:
->>
ID,Name,LastName,Age,Gender
0001,Davis,Molinari,32,M,
0002,Mario,Bianchi,50,M,
0003,Paolo,Rossi,45,M,
0004,Dav,Sanchase,38,M,
0005,Maria,Neri,25,F,
0006,Mack,Bian,40,M,
0007,Dale,Sai,60,M,
0008,Ria,Wai,33,F,
0009,Lucifier,Del,28,M,
00010,Sanarit,Mexi,30,M,
00011,Lola,Russ,29,M,
00012,John,Smitt,28,M,
00013,Sineri,Mari,32,F,
00014,Charlotte,Deki,50,F,
00015,Rick,Sance,65,M,

Shell commands to extract the value
of 3rd column 5th row and output the result into a text file:

 ->> awk 'NR==5 { print $3 }' data.csv > result.txt

NR represent the rows number which data is extracted
$3 represent the column and number 3 represent the number third column

In file result.txt file(output file after running shell command):

->> Sanchase

Note: Sanchase is output because we include the first row which is headers of following rows.