

## 6217 Destination North America

Twenty-one slots at the ICPC World Finals are reserved for North American teams. Currently, each of the eleven regions is guaranteed that its winner will advance to the World Finals; the other slots are allocated by ICPC Headquarters. Generally, advancing a second or third team is based on fuzzy logic that includes things like the number of teams participating from a region and/or regional growth.

The 2011/2012 North American World Finals Teams participated in an Invitational contest prior to the World Finals. The problem set for this contest was more World Finals-like in difficulty than typical regional contests. (A link to the problem set is on the Regional Facebook page.) The group who organized this has proposed replacing the current allocation methodology with a new process, as follows:

The top five ranked schools from each region would be invited to send a team to the North American Semi-Finals contest—a total of 55 teams. This would be a multi-day event that includes speakers and activities, similar to but shorter than the World Finals.

The winners of the Semi-Finals would advance to the World Finals as follows:

- The top-ranked school from each region would advance.
- The remaining slots would awarded based on placement at the Semi-Finals, irrespective of region.

The goal of this proposal is to create a Semi-Finals that is a destination in and of itself; and, advances stronger North American teams to the World Finals.

The implications of this proposal include the following:

- The team that wins a Regional may not advance to the World Finals (assuming it places lower at the Semi-Finals than another team from its region).
- A single region may send five teams to the World Finals (if they all rank high enough overall).
- The 51st-ranked team may go to the World Finals (if the teams from its region rank 51st-55th at the Semi-Finals).

Your team is to write a program that takes as input the ranking of 55 teams at the Semi-Finals and produces as output a list of the 21 teams that would be invited to the World Finals if this process were in place.

### Input

Input to your program will consist of one or more sets of data. Each data set represents the results of a semi-final contest in rank order. Each data set consists of a contest identifier, followed by a comma, followed by 55 team identifiers separated by commas. Team identifiers consist of a single alphabetic character regional identifier, a hyphen, and a team name that may include white space. No team identifier will span more than one line, although the input for a given contest data set will span multiple lines. Lines will not exceed 80 characters and will always break at a comma. A new data set always begins on a new line.

## Output

For each input set, your program is to print the contest identifier on a line, followed by the 21 team identifiers of the advancing teams, one per line, in the same order as the teams appear in the input list. No leading or trailing whitespace is to appear on an output line.

### NOTES:

1. ACM-ICPC has determined that this proposal could not be implemented without a restructuring of the North American region. This means that, if it or something similar is implemented, it will take several years to complete.
2. The sponsoring entity is going to try to continue to hold the Invitational.

## Sample Input

```
2011-2012,A-team 1,A-team 2,A-team 3,A-team 4,A-team 5,B-team 1,B-team 2,
B-team 3,B-team 4,B-team 5,C-team 1,C-team 2,C-team 3,C-team 4,
C-team 5,D-team 1,D-team 2,D-team 3,D-team 4,D-team 5,E-team 1,
E-team 2,E-team 3,E-team 4,E-team 5,F-team 1,F-team 2,F-team 3,F-team 4,
F-team 5,G-team 1,G-team 2,G-team 3,G-team 4,G-team 5,H-team 1,H-team 2,
H-team 3,H-team 4,H-team 5,J-team 1,J-team 2,J-team 3,J-team 4,
J-team 5,K-team 1,K-team 2,K-team 3,K-team 4,K-team 5,L-team 1,
L-team 2,L-team 3,L-team 4,L-team 5
```

## Sample Output

```
2011-2012
A-team 1
A-team 2
A-team 3
A-team 4
A-team 5
B-team 1
B-team 2
B-team 3
B-team 4
B-team 5
C-team 1
C-team 2
C-team 3
D-team 1
E-team 1
F-team 1
G-team 1
H-team 1
J-team 1
K-team 1
L-team 1
```