
Poker

P26068_en

Anna and Bernat play now to poker with dice (in a simplified version). In each turn, first Anna throws five poker dice, and then Bernat throws them. Each die has 6 sides, with values (more to less): ace, king, queen, jack, ten and nine. Each time wins who gets the highest move. In the event of a tie, Anna wins.

These are the possible move, sorted from more to less value:

- Five-of-a-kind: 5 dice equal.
- Four-of-a-kind: 4 dice equal.
- Full house: 3 dice equal and two dice equal.
- Three-of-a-kind: 3 dice equal.
- Two pair: two dice equal and two dice equal.
- One pair: two dice equal.
- Nothing: All the dice different.

If the two players have the same move, wins who has obtained it with the highest dice. Thus, for instance, a three-of-a-kind of aces wins a three of a kind of kings, and a two pair of kings and nines wins a two pair of queens and jacks.

If still there is a tie after using the dice of the most valuable combination, the second combination is used to break the tie, and so forth. For instance, a three-of-a-kind of jacks with a king wins to a three of a kind of jacks with a queen, a two pair of kings and queens wins to a two pair of kings and tens, a three-of-a-kind of jacks with a king and a ten wins to a three-of-a-kind of jacks with a king and a nine, and nothing with an ace and a king wins to a nothing with an ace and a queen.

Write a program that reads the moves of each game, and decides who wins each one, and computes how many games has won each one.

Input

Input consists of several lines, each one with the throws of dice of a turn (two strings with five characters each one between 'A', 'K', 'Q', 'J', 'T' and 'N', corresponding respectively to an ace, king, queen, jack, ten and nine.

Output

In each turn, print "Anna" or "Bernat" depending on who wins. At the end, print the total number of won games for each one, following the format of the instance.

Sample input

```
AAAAA KKKKK  
KKNKK QQQQA
```

```
JJJTT KKAQ  
AQJTN AKJTN  
JJTTN JJTTN  
AKQJN AKQJT
```

Sample output

Anna
Anna
Anna

```
Bernat  
Anna  
Bernat  
Anna won: 4  
Bernat won: 2
```

Problem information

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