Problem 1:   The Joy of Tricks

Some four player card games, such as *Hearts*, *Spades* and *Bridge* employ the notion of a *trick* in which each of the four players plays a card and whoever played the strongest card takes the trick. The strongest card is determined by its suit and its rank:

- The suit of the first card played is stronger than all other cards played that are of a different suit.

- If the suit of the first card is the same as the suit of any other card(s), then the player who played the card of the highest rank of that suit takes the trick.

In other words, the person who played the card with the highest rank that has the same suit as the first card played takes the trick. (You may assume that there are no trump cards.)

Write a program which, given a list of four-card tricks, computes and outputs for each trick both the player number that takes the trick and the strongest card. Each card is from a standard 52 card playing deck with no joker. Each card is represented by two characters: the first character is the rank, the second is the suit. The ranks are (in ascending order) 2, 3, 4, 5, 6, 7, 8, 9, T, J, Q, K, A. The suits (in no particular order) are d, h, c, s. Each line of the input file is a list of four cards that represent a single trick; each card separated by a white space. The cards are presented in the order that they are played (the first card played is the first card on each line). You may assume that all input files are formatted correctly.

Sample input #1 (available as file "test1a.dat"):

```
7h 3c 4s Kd
2c Ah Ad As
7h 9s Qh 8h
7h 3h 4h Ah
7d 8d Td 9d
Th 6c 8s Js
4c Ac 7d 2s
```

Sample output #1:

```
Player 1 takes the trick with 7h
Player 1 takes the trick with 2c
Player 3 takes the trick with Qh
Player 4 takes the trick with Ah
Player 3 takes the trick with Td
Player 1 takes the trick with Th
Player 2 takes the trick with Ac
```

Sample input #2 (available as file "test1b.dat"):

```
Js Ks 3d 6c
2s 3s 7c Kd
2c Kd 4c 8c
7h Qs 4h Ks
Th Ts Kh Jc
5h 3d 6h 7d
```

Sample output #2:

```
Player 2 takes the trick with Ks
Player 2 takes the trick with 3s
Player 4 takes the trick with 8c
Player 1 takes the trick with 7h
Player 3 takes the trick with Kh
Player 3 takes the trick with 6h
```

Sample input #3 (available as file "test1c.dat"):

```
2s As Tc 4d
9d Jc 2h Jd
5s 8s 9d Qs
```

Sample output #3:

```
Player 2 takes the trick with As
Player 4 takes the trick with Jd
Player 4 takes the trick with Qs
```