# SSE2025: Problem Solving Techniques and Process (Spring 2012)

Programming Lab #2

Due: March.29, 11:59 PM

A poker deck contains 52 cards. Each card has a suit of either clubs, diamonds, hearts, or spades (denoted C, D, H, S in the input data). Each card also has a value of either 1 through 10, jack, queen or king (denoted A, 2, 3, 4, 5, 6, 7, 8, 9, T, J, Q, K). For scoring purposes card values are ordered as above, with A having the lowest and K the highest value. The suit has no impact on value.

A poker hand consists of five cards dealt from the deck. See following table.

| | |
|---|---|
| **Pair.** | : Two of the five cards in the hand have the same value. |
| **Three Cards.** | : Three of the five cards in the hand have the same value. |
| **Two Pairs.** | : The hand contains two different pairs. |
| **Straight.** | : Hand contains five cards with consecutive values. |
| **Flush.** | : Hand contains five cards of the same suit. |
| **Full House.** | : Three cards of the same value, with the remaining two cards forming a pair. |
| **Straight Flush.** | : Five cards of the same suit with consecutive values. |
| **Score Rules** | : Straight Flush > Full House > Flush > Straight > Two Pairs = Three Cards > Pair |

Your job is to compare several pairs of poker hands and to indicate which, if either, has a higher score. If no pair in the poker hand, no score is in that. And if two scores are same, you must decide that game is tie game!

**Input**

The input file contains several lines, first line containing the number of rounds and each remained lines containing the designation of ten cards: the first five cards are the hand for the player named ``*Black*'' and the next five cards are the hand for the player named ``*White*''.

**Output**

For each line of input, print a line containing one of the following:

Black wins.

White wins.

Tie.

**Sample Input**

```
4
2H 3D 5S 9C KD 3C 3H 4S 8C AH
2H 4S 4C 2D 4H 2S 8S AS QS 3S
2H 2D 2S 9C 9D 2C 3H 4S 8C KH
2H 3D 5S 9C KD 2D 3H 5C 9S KH
```

**Sample Output**

```
White wins.
Black wins.
Black wins.
Tie.
```