Problem H

Card Sort

Time limit: 7 second

You are given T pile of poker cards. Each pile has N cards that has value and sign written on top of the card. We can distinct every value into {Ace, 2, 3, 4, 5, 6, 7, 8, 9, 10, Jack, Queen, King} and every sign into {Spades, Hearts, Diamonds, Clubs }. The written value and sign in the cards are only the first letter of each word, except number. For example, for Jack of Diamond, the written value and sign on top of the card is "JD", and for three of clubs, the written value and sign on top of the card is "3C".

Please sort the cards, and inform whether the pile contains all 52 cards, and the number of cards that you discard if you want to build a deck of poker cards.

Constraints:
1<=T<=100
1<=N<=1000000
Value is element of {'A', '2', '3', '4', '5', '6', '7', '8', '9', '10', 'J', 'Q', 'K'}
Sign is element of {'S', 'H', 'D', 'C'}

Input :

The first line contains the number of cards piles (T),
then for each T, input the value and sign of cards in the pile (N) separated by space. There will always be an extra space on the last card.
After input N, input N times, the card value and sign.
Each card value and sign will always be a valid one.

Output :

Print "FULLHOUSE" if the pile contains all 52 cards, or "INCOMPLETE" if not, then print the number of cards that you discard to build a deck of poker cards.

Sample Input :	**Sample Output:**
2 2 3C 3C 52 AS 2S 3S 4S 5S 6S 7S 8S 9S 10S JS QS KS AH 2H 3H 4H 5H 6H 7H 8H 9H 10H JH QH KH AD 2D 3D 4D 5D 6D 7D 8D 9D 10D JD QD KD AC 2C 3C 4C 5C 6C 7C 8C 9C 10C JC QC KC	INCOMPLETE FULLHOUSE 0