Consider a dummy card game played by 2 players. A deck of cards is first shuffled and distributed among the two players. The distribution process involves giving the top card in the shuffled deck to the first player, the next card to the 2nd player and so on. The players are not allowed to touch or see the cards. After the distribution, player 1 plays his top card, followed by player 2, followed by player 1 and so on. The played cards are stacked in-between the players. If the sum of the face values of the top two cards on this played card stack (or the two most recently played cards) is between 20 to 26 (both inclusive) and the two top cards have the same suit, the stack is emptied and all the cards are thrown away. The game proceeds as normal with the first move made by the player next to the player who played the last move. However if the sum of the two top cards is between 2 to 8 (both inclusive) and the two top cards have the same suit, the person playing the last card has to accept all the cards in the played card stack and add it to his/her set. The cards are added one by one from the top of the played card stack to the top of the player’s own card stack. As people lose all their cards, they get eliminated from the game. The first person to have non-empty stack of cards wins the game.

**Input Description**  
The first input is the number N, which is the number of test cases. Each test case has exactly 52 lines denoting a shuffled deck, 1 line per card. The cards in the order of base to top of the shuffled deck. The inputs are in the form of two symbols separated by a space, where the first symbol is a face value (2, 3…, 9, 10, J, Q, K, A). J, Q, K and A have the face value 11, 12, 13 and 1 respectively. The suit may be S, H, D and C denoting spades, hearts, diamonds and clubs. It is assumed that the game always starts with player 1.

**Output Description** Exactly N lines, each denoting 1 if player 1 wins and 0 if player 2 wins.

Sample Input [(Plaintext Link)](https://he-s3.s3.amazonaws.com/media/hackathon/das-lab-assignment-3/problems/card-game-simulation/sample-input-8c6e332.txt?Signature=s6KyHIlUQSLpjUpiOfIarTHHseo%3D&Expires=1423075012&AWSAccessKeyId=AKIAJLE6MUHDYS3HN6YQ) Sample Output [(Plaintext Link)](https://he-s3.s3.amazonaws.com/media/hackathon/das-lab-assignment-3/problems/card-game-simulation/sample-output-8deea35.txt?Signature=9K14pD22K77qfnuY0oh8GHMLVQU%3D&Expires=1423075012&AWSAccessKeyId=AKIAJLE6MUHDYS3HN6YQ)

1 1

8 S

J D

A H

K H

10 S

5 H

Q C

A D

5 S

10 C

2 C

9 D

6 D

2 S

3 C

7 D

5 D

9 H

7 H

7 C

7 S

10 H

A C

8 D

3 S

2 H

Q S

J H

4 C

3 D

10 D

J C

4 H

J S

3 H

6 S

K D

6 C

K S

6 H

Q D

A S

8 C

Q H

8 H

9 C

9 S

5 C

4 S

2 D

K C

4 D