

UTP Open 2025 May 17th, 2025

## Problem B. Blind Queue Dominoes

Source file name: Blind.c, Blind.cpp, Blind.java, Blind.py

Input: Standard Output: Standard

Time / Memory limit: 1/2/2 (C++/Java/Python) second(s) / 64 megabytes

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Dominoes is a turn-based board game consisting of 28 different tiles, where each tile is identified by two integers between 0 and 6. In this version of the game, two players participate, and their tiles remain face down; they can only see one tile per turn. Before starting a game, each player selects 7 tiles and arranges them in a row from left to right. In each turn, a player flips their leftmost tile to reveal its value and, if either of its two values matches one of the two ends of the play sequence, they can attach it to the corresponding end by the matching side. Otherwise, they place the tile face down again at the beginning, but this time from right to left. After a player places a tile at one of the ends or decides to pass, the other player takes their turn.

A game ends when a player runs out of tiles, or if since the last turn a tile was placed, all remaining tiles have been flipped at least once. When the game ends, the player who has no tiles left wins. If both players still have tiles, the winner is the one with the lowest score.

The **score** of a player at the end of the game is the sum of the points of the unused tiles.

Each player keeps track of how many different tiles they have seen a specific number on, counting double tiles twice. This is called the number counter. Each integer from 0 to 6 has a counter. Both players are very careful not to show their tile to the other player when flipping it, so each player keeps track based only on the tiles they have flipped or that have already been placed.

Alice and Bob want to play some games, and they always follow the same strategy on their turn:

- If both ends are the same and either value of the tile matches the ends, attach the tile to either end.
- If the ends are different and the tile matches only one end, attach it to that end.
- If the ends are different and the tile matches both, place the tile on the end with the lower counter. In case of a tie, place it on the end with the smaller value.

Given the tiles each player has, determine who wins the game. Alice always has the first turn and will always place her first tile on that turn.

## Input

The first line contains an integer t ( $1 \le t \le 10^4$ ), indicating the number of test cases. Each test case consists of two lines, each containing 7 pairs of integers  $a_i, b_i$  ( $0 \le a_i, b_i \le 6$ ), describing Alice's tiles in the first line and Bob's tiles in the second line. It is guaranteed that, for each test case, all 14 tiles are distinct.

## Output

For each test case, print a line in the format W T A B, where W is a string indicating who won the game, "Alice", "Bob" or "Draw" in case of a tie, T is the number of turns the game lasted, and A and B are the final scores of Alice and Bob, respectively.

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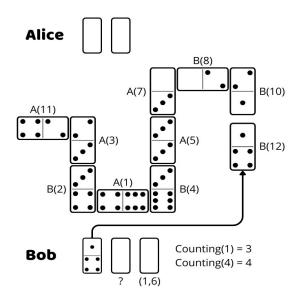


Figure 2. First test case, turn 12

## Example

Input	Output
3	Bob 16 16 9
4 6 2 3 3 3 0 3 5 3 4 2 6 2	Alice 26 6 16
4 3 3 6 1 6 0 2 2 1 1 4 1 1	Draw 14 12 12
0 3 1 5 5 4 1 6 4 2 5 0 1 3	
3 2 0 1 4 3 4 4 5 3 1 4 2 0	
3 5 5 6 3 3 4 1 6 2 2 2 4 4	
3 2 6 3 3 4 1 5 6 1 4 2 6 0	

Use fast I/O methods