

PROBLEM 2: Take Two

[20 points]

Now that you've become proficient at playing the game, we will start adding in extra rules. For this one, if a player plays any "two" card (R2, Y2, G2 or B2), the next player's turn is skipped and they must take two cards. You will apply the Rule of Two below:

2

Rule of Two

If the card last laid in the discard pile was numbered 2, the next player must choose between the following options:

- If they have another "two" card (R2, Y2, G2 or B2) in their hand, they will choose to play the one.
 - If they have more than one colour, they will pick in rainbow order: red-yellow-green-blue.
- If they do not have a "two" card, on their turn they are skipped and must draw two cards from the top of the draw pile.

Input

Same as in Problem 1.

Processing

Same as in Problem 1 with the following exception:

- If a player lay's down a card numbered 2, the next player must apply the Rule of Two as described above.

Output format

Same as in Problem 1 with the following exception:

- If a player lay's down a card numbered 2 and the following player is unable to play another "two" card, output:

`{N}: TAKE TWO`

Where N = 1,2, or 3, the skipped player that had to draw two cards.

HINT: Start from Problem 1 and modify... 

Sample input	Sample output	New hand after play
R1 R4 Y6 G8 B2 R2 R8 Y7 Y8 B3 R3 R6 Y3 G4 G5 B6 Y2 B7 Y1 G6 Y5 G7 ... R5 R7 G1 Y4 B5 ... G3 B1 B8 B4 G2	0: B6 1: B2 2: R2 3: TAKE TWO 1: R1 2: R8 3: R3 1: R4 2: DRAW 3: R6 1: Y6 2: Y1 3: Y2 1: TAKE TWO 2: Y7 3: Y3 1: Y5 2: Y8 3: DRAW 1: G8 2: DRAW 3: G4 1: G6 (WINNER)	-- 1: R1 R4 Y6 G8 B2 2: R2 R8 Y7 Y8 B3 3: R3 R6 <u>Y2</u> Y3 G4 G5 <u>B7</u> 1: R1 R4 Y6 G8 2: R8 Y7 Y8 B3 3: R3 R6 Y2 Y3 G4 G5 B7 1: R4 Y6 G8 2: <u>Y1</u> Y7 Y8 B3 3: R6 Y2 Y3 G4 G5 B7 1: Y6 G8 2: Y1 Y7 Y8 B3 3: Y2 Y3 G4 G5 B7 1: <u>Y5</u> <u>G6</u> G8 2: Y7 Y8 B3 3: Y3 G4 G5 B7 1: Y5 G6 G8 2: Y8 B3 3: G4 G5 <u>G7</u> B7 1: G6 G8 2: <u>R5</u> B3 3: G4 G5 G7 B7 1: G6