

Problem A. Ancient Cards

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 256 mebibytes

Walter is spending holidays at the farm of his great-grandfather. Once he has found a pack of old poker cards among piles of various dusty junk. The cards look quite antiquated and interesting. He starts to lay down the cards one by one, side by side, on the floor when he suddenly notices that there appears to be some kind of order in their sequence. Many pairs of successive cards are either of the same rank or of the same suit. “This might be a nice little puzzle,” says Walter to himself. “I wonder if I can rearrange the sequence so that each two consecutive cards share either the rank or the suit. But wait, the pack looks to be incomplete, that might severely limit the arrangement possibilities, hmm...”

Help Walter determine whether his puzzle is solvable.

Input

There are more test cases. Each test case consists of a single line on which all cards in the pack are listed. The list starts with one integer L ($1 \leq L \leq 52$), denoting the number of cards in the pack, followed by a space and L card descriptions. Each card is described by a two character string. The first character denotes the rank of the card (‘A’=Ace, ‘2-‘9’, ‘X’=10, ‘J’=Jack, ‘Q’=Queen, ‘K’=King) and the second character denotes the suit of the card (‘C’=Clubs, ‘D’=Diamonds, ‘H’=Hearts, ‘S’=Spades). The successive card descriptions are separated by one space.

Output

For each test case, print a single line with the string “YES” if the puzzle is solvable or a line with the string “NO” if the puzzle is not solvable.

Example

standard input	standard output
8 2C 2D 2H 2S XC JS QS KS	YES
4 5C 4H AS 9D	NO