

Poker is a card game in which two players are dealt five cards, each having a value and a suit. The card values (in increasing value order) are 2, 3, 4, 5, 6, 7, 8, 9, T (for 10), J (for jack), Q (for queen), K (for king) and A (for ace). The card suits (in no particular order) are D (for diamonds \diamond), C (for clubs \clubsuit), H (for hearts \heartsuit) and S (for spades \spadesuit). The cards dealt to a player form a *hand*, which is the first (i.e. strongest) of the following that describe it:

hand (by strength)	if five cards contain. . .
straight flush	five consecutive card values and five suits the same
four of a kind	four card values the same
full house	three card values the same and two other card values the same
flush	five suits the same
straight	five consecutive card values
three of a kind	three card values the same
two pairs	two card values the same and two other card values the same
one pair	two card values the same
high card	none of the above

if equal strength	winner determined by tie breaker. . .
straight flush	highest value card
four of a kind	highest value four of a kind
full house	highest value three of a kind
flush	highest value card; else next highest value card; else next highest, etc.
straight	highest value card
three of a kind	highest value three of a kind; else highest value lone card; else next highest value lone card
two pairs	highest value pair; otherwise next highest value pair; else highest value lone card
one pair	highest value pair; else highest value lone card; else next highest value lone card; else next highest value lone card
high card	highest value card; else next highest value card; else next highest, etc.

The player holding the strongest hand wins. If both hands are equally strong, the winner is determined by the tie breaker rules. If the tie breaker rules fail to establish the winner, there is a tie.

Input Format

Each line of the input contains 10 cards (in no specific order) separated by one or more blanks. The first five cards are dealt to the first player and the second five cards are dealt to the second player. Each card is a string of two characters—a value followed by a suit as described earlier.

Output Format

For each line of input, determine what hand each player is dealt and determine which player wins, if any. Print the results as shown in the output sample.

Input Sample

2H 3D 5S 9C KD	2C 3H 4S 8C AH
2H 4S 4C 2D 4H	2S 8S AS QS 3S
2H 3D 5S 9C KD	2C 3H 4S 8C KH
2H 3D 5S 9C KD	2D 3H 5C 9S KH
4H 9S 4C TH JS	8D 7D 4S 4D TD
7H 8D 9H TH JC	8H 9D TC JS QS
6D 8H 8S 2C 2D	5S 8D 8C 2H 2S

Output Sample

high card loses to high card
full house beats flush
high card beats high card
high card ties high card
one pair beats one pair
straight loses to straight
two pairs beats two pairs