1. ACSL Patience

PROBLEM: The game of *Patience* is played with a standard deck of 52 cards and up to 52 piles of cards arranged in a row.

The card values (low to high) are represented as **A** (ace), **2**, **3**, **4**, **5**, **6**, **7**, **8, 9**, **T** (10), **J** (jack), **Q** (queen), and **K** (king) and the suits are represented as **D** (diamonds), **C** (clubs), **H** (hearts), and **S** (spades). For example: **4H** is the four of hearts; **AC** is the Ace of clubs.

The cards are played one at a time as follows: The card being played is placed on top of the leftmost pile whose top card is larger than the card being played with the following exceptions:

1. Consecutive cards in the same pile may not be of the same suit.
2. A king can be placed on an ace.

If there are no such existing piles, a new pile is started to the right of the existing piles.

Here's how the game is played with the following 8 cards: 4H AC 8H 5D 6S 3D 4C 2D

Card	Action
4H	Starts a pile.
AC	Added to the top of the 1st pile.
8H	Cannot go on the 1st pile because the 8 is not less than the ace, so it starts a new pile, to the right of the 1st pile.
5D	Cannot go on the 1st pile because 5 is not less than the ace, so it is added to the 2nd pile.
6S	Cannot go on the AC (1st pile), or on the 5D (2nd pile), so it starts a new pile, to the right of the 2nd pile.
3D	Cannot go on the AC (1st pile) or the 5D (2nd pile), so it is added to the 3rd pile.
4C	Cannot go on the AC (1st pile), but can be placed on the 5D in the 2nd pile.
2D	Cannot go on the AC (1st pile), but can be placed on the 4C in the 2nd pile.

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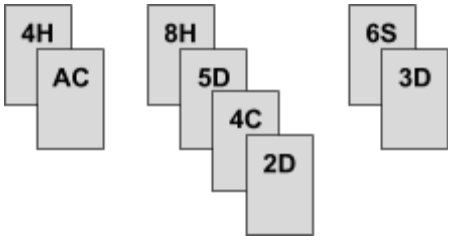
Here is what the piles look like after the cards have been played:



INPUT: There will be 10 lines of data. Each line will contain the cards to process in a game of *Patience*. Each card is represented by a 2-character string in value-suit order. The strings will be separated by one or more spaces.

OUTPUT: Find the pile with the most cards in it. Sum the values of the cards in that pile and print that sum. The value of the cards is 1 (ace), 2, 3, …, 10 , 11 (jack), 12 (queen), and 13 (king). If more than one pile ties for the most cards, then print the smallest sum. We guarantee a unique smallest sum.

SAMPLE INPUT *(3 lines of data only; the Test Data will have 10 lines of data)*:

```
4H AC 8H 5D 6S 3D 4C 2D
2C 3D AH 3H AC 4H 3C 2S AS AD 2H 4C 3S 2D
6S 7H 8C 4C 5S 6D 3D 4D 5H 2C 3H 4S AC
```

SAMPLE OUTPUT:

1. 19
2. 6
3. 20

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TEST DATA

TEST INPUT:

```
9C 8S 7D 6H 8D 6C 4S 7C 5H 3S
AD TH 5C 7S KH JC QS AS 8C 3H 2C 6S 3S 4H AC 2D
QD TH JS QC AH AC AS AD QH KC KS KD
AS 3S 5S 7S 9S JS KS 2C 4C 6C 8C TC QC
KD JD 9D 7D 5D 3D AD QH TH 8H 6H 4H 2H JC 9C 7S 5S 3H AH KS
KS QD JH TS 9H 8C 7S 6H 5C 4S 3H
4H 7D TC KH JH 8C 3H 2D TS QS AS 9C KS AD KC AH KD QH TD AC QC
AC KD QS JH TD 9S 8C 7H 6C 5H 4D 3S 2H AD KH QD JS TC 9H 8D 7C 6S 5D
AC 2C 3C 4C 5C 6C 7C 8C 9C TC JC QC KC AS 2S 3S 4S 5S 6S 7S 8S 9S TS
AH TS TC TD JS QC JH QD JC QH QS JD 9C 8S 7H 6D AC TH AS AD KH KS
```

TEST OUTPUT:

1. 34
2. 20
3. 36
4. 5
5. 49
6. 88
7. 57
8. 173
9. 3
10. 54