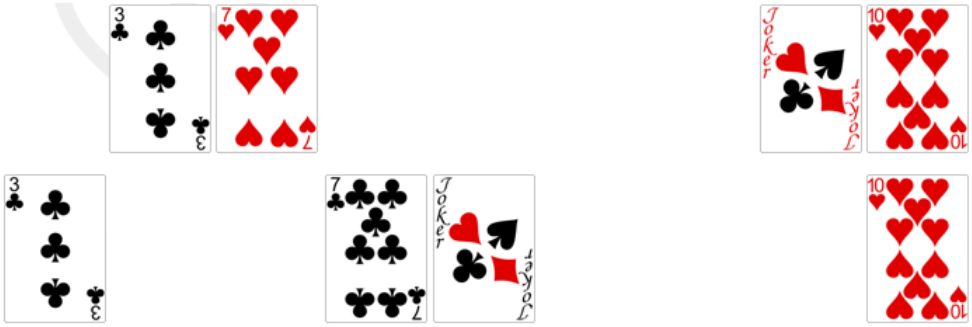
Xtreme8.0 - Kabloom Kabloom

The card game *Kabloom* is played with multiple decks of playing cards. Players are dealt 2 *n* cards, face up and arranged in two rows of *n* cards. The players must discard some of the cards, so that the cards that remain in the first row match the rank of the cards that remain in the second row. The cards match only in rank (e.g. an *Ace* of *Hearts* matches any other *Ace* regardless of suit), but they must appear in the same order in each row. The players are not able to rearrange the order in which the cards appear. Note also that a *Joker* can match any card including another *Joker* .
The goal is to maximize the sum of the point value of the cards that remain. *Aces* are worth 20 points, face cards are worth 15 points, and the numbered cards are worth the number on the card (e.g. the *Seven* of *Clubs* is worth 7 points).The value of a *Joker* is equal to the card with which it is matched, e.g. a *Joker* matched with an *Ace* is worth 20 points, a *Joker* matched with a face card is worth 15 points, etc. If two *Jokers* are matched with each other, they are worth 50 points each.

Task

Write a program that determines the value of the best hand given the two rows of cards. For example, consider the hand that is dealt below.

The best possible hand has a value of 140, and is obtained by keeping the cards shown below:



Card Images by Byron Knoll

Input

The input is made up of multiple test cases (#test cases<=30, if 1<=n<=10 or #test cases<=10 if 10<=n<=1000). Each test case contains three lines of input.
The first line in each test case is an integer *n* , 1 <= *n* <= 1,000, indicating how many cards are in each row.
The second line of the test case will contain *n* symbols representing the ranks of the cards in the first row. Each symbol will be chosen from the list {A, 2, 3, 4, 5, 6, 7, 8, 9, T, J, Q, K, R}. The symbols in the list

represent the following ranks, respectively, {Ace, Two, Three, Four, Five, Six, Seven, Eight, Nine, Ten, Jack, Queen, King, Joker}. Similarly, the third line of the test case will contain the n symbols of the cards in the second row.
The input will end with a 0 on a line by itself.

Output

For each test case, output the value of the best Kabloom hand on a line by itself. Note that the cards that comprise the best Kabloom hand may not be unique for a test case.
Note: Every line of output should end in a newline character .

Sample Input 1

```
9
6 3 7 4 2 A K R T
3 5 4 7 R A Q K T
0
```

Sample Output 1

```
140
```

Sample Input 2

```
7
R R 5 4 A T Q
Q 3 T A 8 8 8
13
A 2 3 4 5 6 7 8 9 T J Q K
K Q J T 9 8 7 6 5 4 3 2 A
6
A A A A A A
K Q J T 9 8
13
A 2 3 4 5 6 7 8 9 T J Q K
A 2 3 4 5 6 7 8 9 T J Q K
0
```

Sample Output 2

```
90
40
0
238
```