

Blackjack

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Task

This task simulates behaviour of the dealer in the card game Blackjack. In the game the dealer has only one choice after it has reached 17 or more points - it can decide whether an ace will count as 1 or as 11.

The input you receive consists of a row of cards which is longer than needed and you, as the dealer, must decide after which card you need to stop. That happens as soon as the total number of point reaches 17 or more. It may even be higher then 21 in which case the dealer has lost.

Cards are represented by the numbers 1-10 and letters H, D and B for Jack, Queen and King who are all valued at 10 points. An ace (1) counts by default as 11. Its value can only be changed to 1 if keeping it at 11 would cause the dealer to lose.

Let's take this row of cards as an example:

1 2 3 4 1 6 7 8 9 10

In this case the dealer needs to stop after the fourth card where he will have reached 20 points. In case of

1 2 3 6 4 5 7 8 9 10

the dealer has reached $11+2+3+6=22$ points and is about to lose. In that case he can decide to count the ace (1) as 1 point and has only 12 points. He then takes 2 more cards and stops after total of 6 cards reaching 21 points. In case of

2 3 4 5 9 1 1 1 1 1

the dealer stops after the fifth card reaching 23 points.

Input

The first row contains one whole number representing the number of test cases. For each test case there is one row with a number of whole numbers between 1 and 10 and letters H, D and B. Those numbers and letters are separated by a space. There are in each row enough numbers/letters to cause the dealer

to stop at some point.

Example input

```
4
1 2 3 4 1 6 7 8
1 2 3 6 4 5 7 8 9 10
2 3 4 5 9 1 1 1 1
H B 1 2
```

Output

For each test case you need to output one row. Each row must begin with the index of its respective test case followed by exactly one space. First test case has index 1. For each test case you print two numbers: number of cards the dealer has to take and the total number of points the dealer will have reached. Those two numbers need to be separated by exactly one space

Example output

```
1 4 20
2 6 21
3 5 23
4 2 20
```