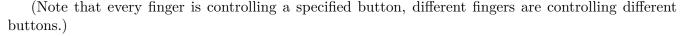
# 10415 Eb Alto Saxophone Player

Do you like saxophone? I have a Eb Alto Saxophone, shown on the right.

My fingers move A LOT when playing some music, and I'm quite interested in how many times each finger PRESS the button. Assume that the music is composed of only 8 kinds of note. They are: C D E F G A B in one octave and C D E F G A B in a higher octave. We use c,d,e,f,g,a,b,C,D,E,F,G,A,B to represent them. The fingers I use for each note are:

- c: finger  $2 \sim 4$ ,  $7 \sim 10$
- d: finger  $2\sim4$ ,  $7\sim9$
- e: finger  $2\sim4, 7, 8$
- f: finger  $2\sim4$ , 7
- g: finger  $2\sim4$
- a: finger 2, 3
- b: finger 2
- C: finger 3
- D: finger  $1 \sim 4, 7 \sim 9$
- E: finger  $1 \sim 4, 7, 8$
- F: finger  $1\sim4$ , 7
- G: finger  $1 \sim 4$
- A: finger  $1\sim3$
- B: finger  $1\sim 2$



Write a program to help count the number of times each finger presses the button. A finger presses a button if it is needed in a note, but not used in the last note. Also, if it is the first note, every finger required presses the button.

### Input

The first line of the input is a single integer t ( $1 \le t \le 1000$ ), indicating the number of test cases. For each case, there is only one line containing the song. The only allowed characters are {'c','d','e','f','g','a','b', 'C','E','F','G','A','B'}. There are at most 200 notes in a song, and the song maybe empty.



#### Output

For each test case, print 10 numbers indicating the number of presses for each finger. Numbers are separated by a single space.

## **Sample Input**

3 cdefgab BAGFEDC CbCaDCbCbCCbCbabCCbCbabae

#### **Sample Output**

```
0 1 1 1 0 0 1 1 1 1
1 1 1 1 0 0 1 1 1 0
1 8 10 2 0 0 2 2 1 0
```