

3119 Arnie versus the IRS

Arnie's bakery is the leading producer of gourmet dog treats in the world. To comply with FDA requirements, Arnie etches the current date on each treat he produces. The date is etched using the format *YYYYMMDD*, where *YYYY* represents the year, *MM* represents the month, and *DD* represents the date (these values are padded with zeros if necessary). Arnie is very particular about the work that he does, and takes his time making treats, and as a result he only produces one treat a day.

The IRS has been after Arnie for some time, and this year they have decided to audit him. After working with the auditor for several days, the only remaining bone of contention is the writeoff that Arnie claims for etching the date on his products. In order to satisfy the auditor, and get back to work, Arnie must determine the number of each of the digits he engraved in his treats during a specific period of time.

For example, during the period 11/01/2004 through 11/02/2004 Arnie produced two treats and etched a total of 6 zeros, 5 ones, 3 twos, and 2 fours.

Input

The input to your program will consist of two lines, each containing a date formatted as *MM/DD/YYYY*

The first line specifies the start of the period, and the second the end of the period (inclusive). You may assume that the first date occurs before or on the second and that the year in both dates is greater than or equal to 1920.

Output

Your program will produce as output a list that contains two columns. The first column contains the digits '0' to '9', in ascending order. The second column contains the number of times the corresponding digit appeared. Note that Arnie enjoys his free time (he likes to take his humans on long walks in the woods) and therefore does not work on Saturdays and Sundays.

Sample Input

```
10/31/2004
11/02/2004
```

Sample Output

```
0 6
1 5
2 3
3 0
4 2
5 0
6 0
7 0
8 0
9 0
```