3122 Intergalactic Licenses

Since the formation of the Intergalactic Nation of Solar Systems (INS), citizens of the various planets in the nation have to apply for an intergalactic driver's license in order to operate a vehicle on a planet. These licenses are valid from the date the application is submitted until the end of the driver's next birthday on the planet the license is issued for; relative to a planet, birthdays repeat once a year. Calculating an expiration date is complicated by the fact that different planets have days of different length and different calendars and everything is calculated as precisely as possible.

In an attempt to make interplanetary travel easier, the INS passed a law that standardized the way in which all of the planets in the nation denote a day and time. Time is measured by counting the number of standard time units (STU) that have passed since the start of a day. The length of a STU is the same on every planet — however, the number of STUs in a day may vary from planet to planet. The length of a STU was carefully selected so that the number of STUs in a day, on any planet, is always a positive integer. INS timestamps are written in the following format: '*year*`/`*month*`/`*day*`+`*stu*'. After the passage of this law, the time on all planets was set to '`0/0/0+0`'. Years, months, and days start at 0.

The INS also passed a law that standardized calendars. The law eliminated leap years and specified that a planetary calendar be represented by a series of positive integers, separated by blanks, on a single line. The first number in the calendar specifies the number of STUs in a single day on that planet. The remaining numbers on the line define the number of days in each month on the planet (note that the number of these remaining numbers specifies how many months are in a year). The following line specifies the calendar used on the planet Earth:

```
86400 31 28 31 30 31 30 31 31 30 31 30 31
```

When applying for an intergalactic driver's license, travelers specify three planetary calendars: the calendar for the planet where they were born, the calendar for the planet where they live (their home planet), and the calendar for the planet where they want to operate a vehicle. They then supply two dates: their birth date and the date of the application.

You are to write a program that computes the expiration date for the license.

Input

The program will read 5 lines of input: the birth planet's calendar, the home planet's calendar, the calendar for the planet where a vehicle is to be operated, the birth date (on the birth planet), and the application date (on the home planet).

Output

Your program will produce as output a single line that contains the expiration date of the license on the home planet.

Sample Input

```
1000 10 10
100 200 200
10 3000 3000
0/1/2+3
1/0/5+0
```

Sample Output

```
4/0/0+209
```