A. Restoring Password

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Igor K. always used to trust his favorite Kashpirovsky Antivirus. That is why he didn't hesitate to download the link one of his groupmates sent him via QIP Infinium. The link was said to contain "some real funny stuff about swine influenza". The antivirus had no objections and Igor K. run the flash application he had downloaded. Immediately his QIP Infinium said: "invalid login/password".

Igor K. entered the ISQ from his additional account and looked at the info of his main one. His name and surname changed to "H1N1" and "Infected" correspondingly, and the "Additional Information" field contained a strange-looking binary code 80 characters in length, consisting of zeroes and ones. "I've been hacked" — thought Igor K. and run the Internet Exploiter browser to quickly type his favourite search engine's address.

Soon he learned that it really was a virus that changed ISQ users' passwords. Fortunately, he soon found out that the binary code was actually the encrypted password where each group of 10 characters stood for one decimal digit. Accordingly, the original password consisted of 8 decimal digits.

Help Igor K. restore his ISQ account by the encrypted password and encryption specification.

Input

The input data contains 11 lines. The first line represents the binary code 80 characters in length. That is the code written in Igor K.'s ISQ account's info. Next 10 lines contain pairwise distinct binary codes 10 characters in length, corresponding to numbers 0, 1, ..., 9.

Output

Print one line containing 8 characters — The password to Igor K.'s ISQ account. It is guaranteed that the solution exists.

Examples

input

```
0100110010010110000001011000100101100100010110011001011010000101101010010110110 0
0100110000
0100110010
0101100000
0101100010
0101100100
0101100110
0101101000
0101101010
0101101100
0101101110
```

output

```
12345678
```

input

```
1010110111100100001010010001101010110111001011011101100010001101111001011000100 0
1001000010
1101111001
1001000110
1010110111
0010110111
1101001101
1011000001
1110010101
1011011000
0110001000
```

output

→ **Attention**

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Beta Round #76 (Div. 2 Only)

Finished

→ **Virtual participation**

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ **Problem tags**

implementation strings

No tag edit access

→ **Contest materials**

- Announcement
- Tutorial #1
- Tutorial #2

```
30234919
```
