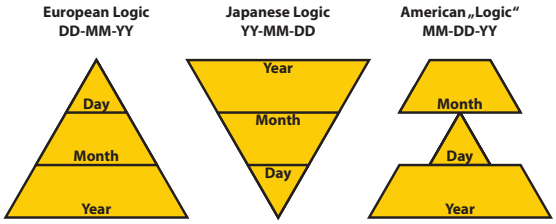
Problem ID: dateformats

As you arrive in Pretoria, South Africa, a stranger bumps into you in the street and drops off a messenger bag. You try to give it back, but the person is already gone in the crowds. Looking inside the bag in hopes of finding some clues leading you to its owner, you find some very old papers, which seem to be somebody's memoirs. Fascinated at first glance, you decide to spend the evening in your hotel room, reading the stories you just uncovered.



It turns out that the memoirs are the long-lost letters of Gulliver, telling stories of his travels through Africa, which he begins with an anecdote about the Lilliputian quarrel over the practice of breaking boiled eggs. Despite the long lasting tradition of breaking the boiled egg on the larger end, the Emperor once decided that all eggs are to be broken on the smaller end after his son cut himself when observing the old tradition. This decree caused many rebellions in the land of Lilliput, and the two factions were called Little Endians and Big Endians – obviously corresponding to the smaller or bigger end of the egg.

Gulliver is very amused about the connections between this story and the date formats used by countries around the world. The *endianness* of a date format refers to the time unit with which it begins, so the format `DD-MM-YY` is little-endian, `YY-MM-DD` is big-endian, and `MM-DD-YY` is middle-endian. Here, `DD` stands for days, `MM` for months, and `YY` for years. In total, one could conceive of six different date formats, one for each permutation of `YY`, `MM` and `DD`.

Gulliver mentions that when dating his memoirs he always used the date format of the country he was telling his stories from. However, he occasionally omitted the name of the country, so you do not know the actual date of record. Even so, you can still draw some conclusions about the date format based on the numbers, for instance `13` could never correspond to a month. Given a date from Gulliver's memoirs, which are the formats that he could have used to write it? Based on the age of the paper, you always assume the year to be `16YY`, so for the purpose of this problem the leap years are exactly those years which are divisible by four.[1]

Input

The input consists of one line, containing the date string. The string is always in the format a-b-c, where a, b and c each consist of exactly two decimal digits.

Output

Print all the possible date formats, in any order. The six date formats are:
`YY-MM-DD`, `YY-DD-MM`, `MM-YY-DD`, `MM-DD-YY`, `DD-YY-MM`, `DD-MM-YY`.

Sample Input 1

```
29-07-02
```

Sample Output 1

```
YY-MM-DD
YY-DD-MM
DD-MM-YY
```

Sample Input 2

```
02-02-03
```

Sample Output 2

```
YY-MM-DD
YY-DD-MM
MM-YY-DD
MM-DD-YY
DD-YY-MM
DD-MM-YY
```

Sample Input 3

```
98-76-54
```

Sample Output 3

[1] Recall that in leap years February has 29 days (28 days otherwise). The other months have 31 days each, except for April, June, September and November, which have 30. Days and months are numbered starting from `01`.