More than 200 companies in more than 50 countries all over the world contribute to the success of the Merck Group. You can imagine that everyday Merck Group Headquarters at Darmstadt gets loads of mail from all over the world, the layout of all the letters following the customarystyle of their origin. In particular, the representation of a date is often ambiguous if you don’t know in what order day, month, and year are given.

For example, if you read 1-11-2003, you don’t know if that represents the first of November 2003, or the eleventh of January 2003, or the eleven of the first of January 2003. It might even be the second of March 2003, or some other permutation of the three numbers. Delimiters can be slashes, backslashes, hyphens, dots, commas, or no delimiters at all.

You are hired to write a program that converts dates given in an unknown format to the format of the Adjusted Calendar of Merck (ACM). The latter specifies thenumber of days relative to November 4, 2001, an important day in Merck’s history.

Input
The first line contains the number of scenarios.

Every scenario contains a single date on a line by itself. A date consists of three parts: A day, a month, and a year given in any order, separated either by slashes, backslashes, hyphens, dots, commas, or no delimiters at all.

The day and month are represented by a single digit or two digits, the first of which can be a leading zero. Valid years are in the range 1700...2299; either all four digits are given, or just the last two that specify the year relative to the century. In the latter case, a leading zero may be needed.

The day and month are represented by a single digit or two digits, the first of which can be a leading zero. Valid years are in the range 1700...2299; either all four digits are given, or just the last two that specify the year relative to the century. In the latter case, a leading zero may be needed.

In the Adjusted Calendar of Merck (ACM), the latter specifies the number of days relative to November 4, 2001.

You are hired to write a program that converts dates given in an unknown format to the Adjusted Calendar of Merck (ACM).

Problem

For example, if you read 1-11-2003, you don’t know if that represents the first of November 2003, or the eleventh of January 2003, or the eleven of the first of January 2003. It might even be the second of March 2003, or some other permutation of the three numbers. Delimiters can be slashes, backslashes, hyphens, dots, commas, or no delimiters at all.

Sample Input

Sample Input

Sample Input

Sample Input