Problem K
Leap

Source file: `leap.{c | cpp | java}`
Input file: `leap.in`

A leap year is a year containing an extra day. In Georgian Calendar, the extra day is February 29th. The extra day is added to prevent the calendar year from drifting and keeps it synced with the astronomical and seasonal year.

This year, 2016, is a leap year. On February 29th of this year, there were discussions on some radio stations asking people who were born on February 29th to call in to wish them a happy birthday, because, as they put it, people born on this day celebrate their birthdays only once every 4 years. This is not a very accurate statement, as there are cases where someone might have to wait up to 8 years to celebrate their birthday.

A year is a leap year if it's divisible by 4, unless it's divisible by 100 (centurial years). Centurial years are only leap years if they are divisible by 400. For example, 2000 is a leap year, but 1900 is not a leap year.

In this problem, your task is to find out how many birthdays someone who's born on a leap day (February 29th) has had.

Input

The input starts with a number T ($0 < T < 1{,}000$) that represents the number of test cases in the file. Each test case consists of one line that contains two integers S and E ($0 < S \leq E \leq 10^{15}$) representing the birth year of the person born on a leap day, and the current year, respectively. Your calculations should include the current year.

Output

The output for each test case is in this form:

`k. ans`

where ***k*** represents the test case number (starting at 1), and ***ans*** is the number of birthdays the person has had up to and including the current given year. If the birth year is not a leap year, print "Not a leap year!" without the quotes, instead.

Sample Input	Output for Sample Input
3 2008 2016 1996 2020 1990 2024	1. 2 2. 6 3. Not a leap year!