HELP

Description

Brie, Lena, and Yanti want to play a game where they need to guess the day number of a specific date. For example, January 1st, 2003 is day 1, and December 31st, 2003 is day 365. But they want to skip the leap years. A year is a leap year if it is divisible by 4, except that any year divisible by 100 is a leap year only if it's divisible by 400. And they want to make a program that will help them check whether their answer is correct or not.

In the middle of making the program, they got really confused and decided to ask you for help. Since you're a good friend of theirs and you have nothing to do, you decided to help them. Write a program that determines the day number (1 to 365) in a year for a date that is provided as one of the inputs.

Constraints

$0 < \text{date} \leq 31$
$0 < \text{month} \leq 12$
$0 < \text{year} \leq 2080$

Input

There's only 1 line and it contains 3 integers: **date**, **month**, and **year.**

Output

- If it is a leap year, print **it is a leap year.**
- If the date or month is out of range, print **invalid date or month!!!**
- If it is not a leap year and the date and month are valid, print **Day number: %d**

Examples

1.

input
26 9 2004
output
it is a leap year.

2.

input
30 2 2075
output
invalid date or month!!!

3.

input
15 1 2003
output
Day number: 15

Explanation

In example 1, year 2004 is a leap year because it is divisible by 4.

In example 2, the date is invalid because the input is 30 Febuary and February doesn't have more than 28 days.

In example 3, I think it is very self explanatory.

Good luck ＼(ˆ▽ˆ)／