Problem J
Linear Equation

Time limit: **3 seconds**
Memory limit: **1024 megabytes**

Problem Description

LeBron James has a friend, who has a child named LaBa Jams. LaBa is now doing research in a lab which is led by Professor Cheng-Ying Yang, and researching topics are usually related to mathematics.

One day, after he finished all the tasks that were assigned to him, he left the lab, locked the door, and decided to go to Izakaya. While he was drinking Shōchū, he recalled the many tests he had to go through to get into the lab. "Sure enough, the toughest one was the one where I had to solve ten linear equations in ten seconds," he thought. "Although our research often requires calculations, I don't think people with such fast calculation speeds can still be called human. But I also passed that kind of test, so I don't think I'm qualified to say that, haha."

A few days later, Professor Yang told LaBa that the lab is going to hold the Lab Entering Test of this academic year soon. LaBa knows that you really want to enter Professor Yang's lab, so he decided to tell you the things about the test he thought is the hardest.

To pass the test, you now decided to write a program to achieve "solving one linear equation per second."

Input Format

Your program is to read from standard input. The first line of the input contains an integer T, which represents the number of equations. The following T lines, each line contains an equation E.

Output Format

Your program is to write to standard output. Print exactly one line for each test case. The line is to contain the answer of the equation. But, if the answer, ans of the equation is a float, please output $\lfloor ans \rfloor$. Besides, if the equation has no solution, then the output should be "`NONE`"; if the equation has infinite solutions, then the output should be "`INF`". Please see the sample output.

Technical Specification

- $1 \leq T \leq 15$
- $|E| \leq 255$
- The equation E is guaranteed to contain only digits(`0`–`9`), plus sign(`+`), minus sign(`-`), and lowercase character '`x`' in it.
- The equation E is guaranteed to be valid. That is, there is exactly one equal sign in it, and it must include at least one term on both sides of the equal sign.

- The terms in equation E are guaranteed to be valid. That is, for a linear term, it must appear in the order of sign, coefficient, and 'x'; for a constant term, it must appear in the order of sign and coefficient.
- The coefficients are integers in the range $[0, 1000]$ inclusive.

Sample Input 1

```
3
2x-4+5x+300=98x
x+2=2+x
x+1=x-1
```

Sample Output 1

```
3
INF
NONE
```