

## 3034 Count on Cantor

One of the famous proofs of modern mathematics is Georg Cantor's demonstration that the set of rational numbers is enumerable. The proof works by using an explicit enumeration of rational numbers as shown in the diagram below.

$$\begin{array}{cccccc} 1/1 & 1/2 & 1/3 & 1/4 & 1/5 & \dots \\ 2/1 & 2/2 & 2/3 & 2/4 & & \\ 3/1 & 3/2 & 3/3 & & & \\ 4/1 & 4/2 & & & & \\ 5/1 & & & & & \end{array}$$

In the above diagram, the first term is  $1/1$ , the second term is  $1/2$ , the third term is  $2/1$ , the fourth term is  $3/1$ , the fifth term is  $2/2$ , and so on.

### Input

The input is from a text file. You are to write a program that will read a list of numbers in the range from 1 to  $10^7$ .

The input list contains a single number per line and will be terminated by end-of-file.

### Output

The program will print for each number the corresponding term in Cantor's enumeration as given below. No blank line should appear after the last number.

### Sample Input

```
3
14
7
```

### Sample Input

```
TERM 3 IS 2/1
TERM 14 IS 2/4
TERM 7 IS 1/4
```