

I - Count on Cantor

Input: standard input

Output: standard output

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.

1/1 1/2 1/3 1/4 1/5 ...

2/1 2/2 2/3 2/4 ...

3/1 3/2 3/3 ...

4/1 4/2 ...

5/1 ...

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.

You are to write a program that will read a list of numbers and will print for each number the corresponding term in Cantor's enumeration as given below.

Input

The input contains a number n ($1 \leq n \leq 10^7$) per line, and will be terminated by end-of-file.

Output

For each number n in the input list, print **TERM n IS a/b** where a/b is the n th term in Cantor's enumeration.

Sample Input

3
14
7

Sample Output

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