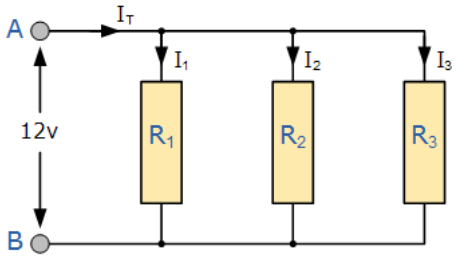
Problem E. Resistors in Parallel

Input file: `standard input`
Output file: `standard output`

In this physics problem, what we are concerned about are only resistors. If you are poor at physics, do not worry, since solving this problem does not require you to have advanced abilities in physics.

Resistors are said to be connected together in parallel when both of their terminals are respectively connected to each terminal of the other resistors.



We have the following parallel resistor equation for k resistors with resistances $R_1, R_2, \cdots, R_k$ in parallel and their combined resistance R:

$$R = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \cdots + \frac{1}{R_k}}.$$

Now you have n resistors, the i-th of which has a resistance of r_i ohms with the equation

$$r_i = \begin{cases} \infty & \texttt{if } i \texttt{ can be divided by } d^2 \texttt{ for some integers } d \geq 2, \\ i & \texttt{otherwise.} \end{cases}$$

You also have n selections, the i-th of which is a set of resistors S_i such that

$$S_i = \{\texttt{the } j\texttt{-th resistor} \mid j \texttt{ is a divisor of } i\}.$$

Please find a selection in which the resistors form a parallel resistor with the minimum resistance and output the reduced fraction $\frac{p}{q}$ of its resistance.

Input

The input contains several test cases, and the first line contains a positive integer T indicating the number of test cases which is up to 100.

For each test case, the only one line contains an integer n, where $1 \leq n \leq 10^{100}$.

Output

For each test case, output a line containing a reduced fraction of the form `p/q` indicating the minimum possible resistance, where `p` and `q` should be positive numbers that are coprime.

Example

standard input	standard output
3 10 100 1000	1/2 5/12 35/96

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