Egyptian Fractions

In mathematics, a fraction is the rational number $\frac{p}{q}$, where p and q are integers. An Egyptian fraction is a sum of fractions, each with numerator 1 where all denominators are different, e.g. $\frac{1}{2}+\frac{1}{3}+\frac{1}{16}$ is an Egyptian fraction, but $\frac{1}{3}+\frac{1}{3}+\frac{1}{5}$ is not (repeated denominator 3).
Every positive fraction $(q \neq 0, p \leq q)$ can be represented by an Egyptian fraction, for instance, $\frac{43}{48}=\frac{1}{2}+\frac{1}{3}+\frac{1}{16}$. Given p and q, write a program to represent the fraction $\frac{p}{q}$ as an Egyptian fraction.

Examples

Input	Output
43/48	43/48 = 1/2 + 1/3 + 1/16
3/7	3/7 = 1/3 + 1/11 + 1/231
23/46	23/46 = 1/2
22/7	Error (fraction is equal to or greater than 1)
134/3151	134/3151 = 1/24 + 1/1164 + 1/2445176
2019/2019	2019/2019 = 1/2 + 1/3 + 1/6

Note: There may be more than one correct solution, e.g. 3/7 = 1/4 + 1/8 + 1/19 + 1/1064. If you follow the greedy algorithm logic, you should get the solutions given in the input/output examples.

Hints
You can complete the expression by starting with the biggest fraction with numerator 1 which added to the expression keeps it smaller than or equal to the target fraction. The biggest fraction is the one with smallest denominator – 1/2. Increase the denominator until you've found a solution.