Problem A: Sorting fractions

Advanced Algorithms for Programming Contests

Restrictions

Time: 2 seconds
Memory: 512 MB

Problem description

You are to write a function that can sort any given list of fractions. To test it, you should sort the list of all fractions built from given lists of numerators and denominators.

Input

The input consists of

- one line containing integers N and M ($1 \leq N, M \leq 10^3$) – the amounts of numerators and denominators, respectively
- one line containing a list of N integers $a_1, ..., a_N$ ($-10^9 \leq a_i \leq 10^9$, $a_i \neq a_j \ \forall i \neq j$) – the numerators
- one line containing M positive integers $b_1, ..., b_M$ ($b_i \leq 10^9$, $b_i \neq b_j$ $\forall i \neq j$) – the denominators.

Output

Output the fractions that can be created using numerators and denominators from the respective lists in ascending order. Each fraction should be displayed in a separate line in the format num/den (as in the sample output). **Don't cancel** any of the fractions, that's a different function's job! If some of the fractions have the exact same value, sort them (internally) by the size of their numerator (in ascending order).

Sample input and output

Input	Output
2 3 3 2 6 4 7	2/7 2/6 3/7 2/4 3/6 3/4